



In the Matter of the Northern State Power Company Applications for a 161 Kilovolt High Voltage Transmission Line Route Permit and a Certificate of Need for the Pleasant Valley to Byron Transmission Line Project in Dodge, Olmsted and Mower Counties.

**ENVIRONMENTAL IMPACT STATEMENT
SCOPING DECISION**

**PUC Docket Nos. E002/TL-09-1315
CN-08-992**

The above matter has come before the Director of the Office of Energy Security (OES) for a decision on the Scope of the joint Environmental Impact Statement/Environmental Report (EIS) to be prepared on Northern State Power Company's proposed transmission line project that involves the construction of an approximately 18-mile, 161 kilovolt (kV) transmission line, and associated modifications to the existing Pleasant Valley and Byron Substations, in Dodge, Olmsted, and Mower counties, Minnesota (Figure 1.)

The applicant indicates that the project is needed to accommodate two existing 100 megawatt (MW) wind generation projects in Mower County, and to provide additional outlet capability to serve future generations in the Pleasant Valley Substation area.

A route permit application (E002/TL-09-1315) for the project was filed on December 3, 2009, and accepted by the Minnesota Public Utilities Commission (Commission) on February 9, 2010.

Because the proposed transmission line capacity is greater than 100 kV and is 10 miles or more in length, a Certificate of Need (CN) is required. A CN application (E002/CN-08-992) for this project was filed by the Applicant on December 3, 2009, and accepted by the Commission as substantially complete on February 18, 2010. The certificate of need and the transmission line routing environmental review processes for this project have been combined in accordance with Minnesota Rule 7849.1900, subp. 2, therefore an EIS will be prepared in lieu of an Environmental Report by including in the EIS the analysis of alternatives required by Minn. Rule 7849.1500.

The OES Energy Facility Permitting (EFP) staff held public information and EIS scoping meetings on March 25, 2010, at the American Legion, in Byron, Minnesota, to discuss the project with the public and solicit public input on the scope of the EIS to be prepared. The attendance sign-in sheet indicated a total of 61 people attended the two meetings. The public was given until April 8, 2010, to submit written comments.

In addition to the comments heard at the public meetings, EFP staff also received a total of 13 comment letters – including one letter signed by 59 individuals – all of which were reviewed and considered during preparation of the Scope of the EIS.

Having reviewed the matter, consulted with EFP staff, and in accordance with Minnesota Rules 7850.5300 and 7849.1500, I hereby make the following Scoping Decision:

MATTERS TO BE ADDRESSED

The EIS on the proposed Pleasant Valley to Byron Project will address and provide information on the following matters, which include matters and route alternatives raised during the public scoping comment period:

The EIS will include a description and analysis of human and environmental impacts of the proposed project and alternatives that would have otherwise been required by Minnesota Rule 7849.1500 under an Environmental Report for the Certificate of Need. This includes evaluating the matters of size, type and timing that would not normally be included in an EIS for a route permit application. The EIS will also address the human and environmental impacts of the proposed route in the route permit application and other impacts identified by public comments received through the scoping process as required under Minnesota Rules 7850.2500. The following is an outline of the issues to be addressed and does not represent a table of contents for the EIS.

1.0 INTRODUCTION

- Project Description
- Purpose of the Transmission Line
- Project Location
- Route Description
 - Applicant's Preferred Route
 - Applicant's Alternative Route
- Substation Description
- Route Width
- Rights-of-Way Requirements
- Project Cost
- Sources of Information

2.0 REGULATORY FRAMEWORK

- Commission Certificate of Need Process
- Commission HVTL Route Permit Process
- Environmental Review under the Full Review Process

3.0 ENGINEERING AND OPERATION DESIGN

- Transmission Line Conductors
- Transmission Line Structures
- Substations

4.0 CONSTRUCTION

- Transmission Line and Structures
- Substations
- Property/Right-of-Way Acquisition
- Cleanup and Restoration
- Damage Compensation
- Maintenance

5.0 ALTERNATIVE ROUTES TO BE EVALUATED IN EIS

Description of alternative routes and route segments to the proposed project developed during the public scoping process (see attached Map.)

The “345” Route Alternative – Several members of the public suggested that an alternative be considered that parallels, or shares the right-of-way with, the existing 345kV transmission that connects the Pleasant Valley Substation with the Byron Substation.

Alternative Route Segment A – A member of the public suggested an alternative route segment along the Applicant’s preferred route south of the Byron Substation. This alternative route segment would continue east 0.5-miles on 10th Street (from where the Applicant’s preferred route would turn north on 280th Avenue), then turn north along the “345” Route Alternative to the Byron Substation.

Alternative Route Segment B – A member of the public suggested an alternative route segment along the Applicant’s preferred route south of the Byron Substation. This alternative route segment would continue south along 280th Avenue approximately two miles (from where the Applicant’s preferred route would turn west at 10th Street), and turn west instead on County Road 8, joining the Applicant’s preferred route at the junction of County Road 8 and County Road 15.

Alternative Route Segment C – A member of the public suggested an alternative route segment along the Applicant’s preferred route south of the Byron Substation. This alternative route segment would continue south along 280th Avenue approximately 1.5 miles (from where the Applicant’s preferred route would turn west at 10th Street), and turn east on County Road 25, where it would join the “345” Route Alternative.

6.0 ALTERNATIVES TO THE TRANSMISSION PROJECT TO BE EVALUATED IN EIS

The Environmental Impact Statement, in accordance with Minnesota Rule 7849.1500, will describe and analyze the feasibility of the following alternatives, and the impacts and mitigation measures associated with each:

- No-Build
- Demand Side Management
- Purchased Power
- Conservation
- Existing Line or System Improvements
- Generation

7.0 AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

The EIS will include a discussion of the human and environmental resources potentially impacted by the project and its alternatives. Potential impacts, both positive and negative, of the proposed project and each alternative considered will be described. Based on the impacts identified, the EIS will describe mitigative measures that could reasonably be implemented to reduce or eliminate the identified impacts. The EIS will describe any unavoidable impacts resulting from implementation of the proposed project.

Environmental Setting
Socioeconomic Setting
Human Settlement

Noise

Aesthetics

- including: Visual Impacts

Public Health and Safety

- including: Electromagnetic Fields; safety considerations and compatibility with construction, operations and maintenance of an HVTL near an underground natural gas pipeline; motorist safety considerations and compatibility with construction, operations and maintenance of an HVTL near a road right-of-way; and, stray voltage.

Recreation

- including: Recreational uses of Salem Creek

Transportation and Public Services

- including: Future development scenarios – including plans for a roadway interchange at 19th Avenue and U.S. Highway 14; effects on other, existing utilities, including above- and below-ground power lines, telephone lines and fiber optic cables; roadway surface damage associated with the construction of the HVTL; and, Minnesota Department of Transportation state road projects.

Interference

- including: interference with Global Positioning System signals used by equipment in agricultural operations; interference with AM/FM radio frequency reception, emergency services/911 service, telephone reception, and Mayo One helicopter service.

Archaeological and Historic Resources

Zoning and Compatibility/Federal, State and Local Government Planning

Land-Based Economies

-including: HVTL interference with aerial (plane and helicopter) applications of pesticides; impacts to agricultural tile; farms and farm operations; health effects to livestock; and, Agri-tourism businesses in the project area.

Property Values

- including: re-sale value.

Air Quality

Natural Resources

Soils and Geology

- including: erosion prevention measures and best management practices for sediment control

Surface Water

-including: direct impacts to Public Waters, or other surface waters; and waters listed as 303(d) Total Maximum Daily Load Impaired Waters for Turbidity in the project area.

Groundwater

Wetlands

Floodplains

State Wildlife Management Areas/Scientific Natural Areas

National Wildlife Refuge/Waterfowl Production Areas

Flora

- including: forested areas and riparian areas.

Fauna

- including: aquatic organisms.

Rare and Unique Natural Resources/Critical Habitat

8.0 REQUIRED PERMITS AND APPROVALS

The EIS will include a list of permits that will be required for the project.

ISSUES OUTSIDE THE SCOPE OF THE EIS

The following issues will not be considered or evaluated in the EIS:

- Any route alternatives not specifically identified in this scoping decision
- The manner in which land owners are paid for transmission rights-of-way easements, as this is outside the Commission's jurisdiction.

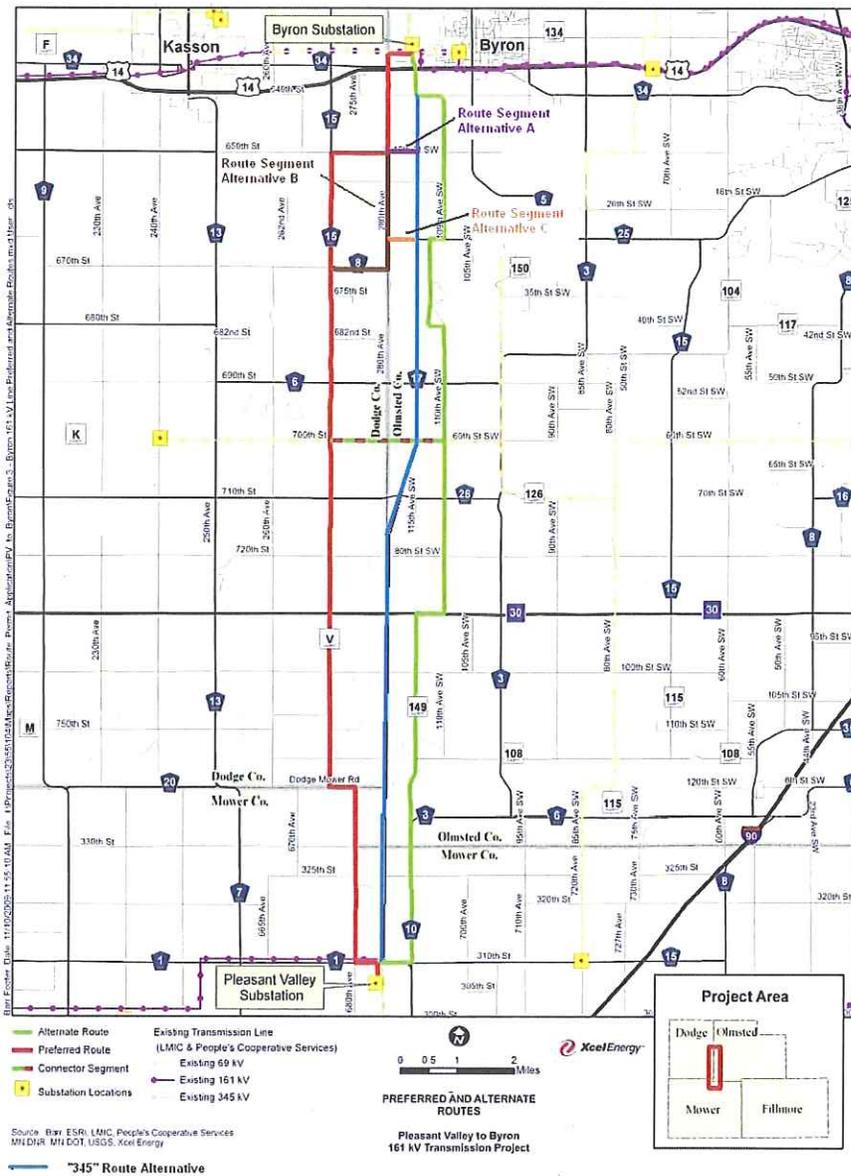
SCHEDULE

The Draft EIS shall be completed and available by October 2010. A public hearing will be held in the project area before an Administrative Law Judge after the Draft EIS has been issued and notice served. The exact date and location of the public hearing has not been set.

Signed this 9th day of July, 2010

STATE OF MINNESOTA
DEPARTMENT OF COMMERCE
OFFICE OF ENERGY SECURITY


William Glahn, Director



Introduction

This appendix provides a summary of the Draft Environmental Impact Statement (DEIS) public meetings, explains the methodology for receiving and organizing DEIS comments, and provides responses to comments received.

The DEIS for the Pleasant Valley to Byron Transmission Line Project was published on October 4, 2010. Notice of the availability of the DEIS was sent to those persons on the Office of Energy Security's project contact list, and published in the Environmental Quality Board Monitor and newspapers of local circulation.

The OES distributed copies of the DEIS to local libraries and those persons and agencies requesting individual copies.

Two public meetings on the DEIS were held at the American Legion in Byron, Minnesota, on October 26, 2010. Based on sign-in sheets, each of the two DEIS meetings was attended by approximately 30 individuals. OES staff led the presentations and presided over the public meetings. The public was encouraged to provide oral comments at the public meetings and to submit written comments to the OES by November 9, 2010. A court reporter was present at the public meetings to ensure that all oral comments were recorded accurately.

Methodology

In preparing the Final EIS, the OES Energy Facility Permitting (EFP) staff considered all comments to the extent practicable. An identification number was assigned to each commenter, including those who expressed comments orally at the public meeting. Individuals who submitted comments in multiple separate submissions were assigned a separate commenter number for each submission. Each specific comment by the same commenter was assigned a sequential comment number; for example, Comment 1-3 refers to the 3rd comment by the commenter assigned as number 1.

Based on the comments received on the Draft EIS, the OES EFP prepared responses and modified the EIS where appropriate. The EIS was also revised based on OES EFP's internal technical and editorial review of the DEIS (i.e., changes made to the EIS that were not in response to a comment received).

Oral comments at the public meetings, as well as scanned images of the original comment documents in order by assigned commenter number, are included in their entirety in this chapter. The commenters and their comments are identified and labeled on each document image beginning with the public meeting oral comments. All comment documents on the DEIS, as well as any supporting attachments, have been entered into the administrative record for this docket. Individual responses for each comment are provided on the right side of each page in close proximity to the corresponding comment. In cases where subsequent comments address the same issue, references are made to the earlier comment number for appropriate responses.

Oral comments were given by one individual at the DEIS public meetings; OES received written comments from two agencies and written comments from seven individuals during the comment period. Comments on the DEIS were also submitted by the Applicant.

The table below provides a listing of the commenters, their assigned identification numbers, and their affiliations.

Commenter Number	Commenter Name	Affiliation
Oral Comments Received at DEIS Public Meetings		
1	Humphrey, Todd	Citizen
Written Agency Comments		
2	Schrenzel, Jamie on behalf of MnDNR	Minnesota Department of Natural Resources
3	Seykora, David on behalf of Mn/DOT	Minnesota Department of Transportation
Written Individual Comments		
4	Bjornson, Scot	Citizen
5	Carlson, Corey	Citizen
6	Clemens, Tim	Greenway Co-op
7	Holecek, Joe	Citizen
8	Humphrey, Todd	Citizen
9	Kirchner, Margaret	Citizen
10	Kraetsch, Mark	Citizen
Written Comments from the Applicant		
11	Xcel Energy	Applicant

PUBLIC COMMENTS

TUESDAY, OCTOBER 26, 2010

In the Matter of the Northern States Power Company (Xcel Energy) Applications for a High Voltage Transmission Line Certificate of Need and Route Permit for the Pleasant Valley to Byron 161 Kilovolt Transmission Line Project in Dodge, Olmsted, and Mower Counties

PUC Docket Numbers E002/CN-08-992 & TL-09-1315
OAH Docket Number 16-2500-21470-2

American Legion
505 Frontage Road
Byron, Minnesota

1:00 MEETING - PAGE 2
6:00 MEETING - PAGE 5

Todd Humphrey Public Comment - Pages 5 & 9

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MR. LANGAN: Let me ask in the back of the room, do we have a registration card? I've got two registered speakers that I'll ask if you wanted to speak on the draft EIS or if you'd rather speak to the judge when we begin the hearing.

Michael Madery is first.

MR. MADERY: I'm probably more interested in speaking on the formal part in front of the judge.

MR. LANGAN: All right. Thank you.

And James Gronseth, sorry if I got the last name incorrect.

MR. GRONSETH: I'd like to decline at this time.

MR. LANGAN: All right. Thank you. I'll save these cards and we'll call them again when we start the hearing comment process. We can just go by a show of hands if anyone has a comment on the draft EIS.

Well, it may not be a perfect document, you may have comments later on. Again, that public notice that we have in the back has our website on there. We do have some limited copies -- not limited, we have a limited number of copies of the draft EIS in booklet form. It looks like this

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1 (indicating).

2 We try to print as few as we need to, but
3 we do have some additional copies. Again, they are
4 in that notice. We list the public libraries where
5 we've placed copies of the document there or else
6 online, you can go to the website. It's a pretty
7 easy and accessible document, I think.

8 From now through November 9th, if you
9 haven't had a chance to review the document yet and
10 after this meeting you go back and you take a look
11 at that and questions pop up about that document,
12 give me a call, send me an e-mail. You know, I can
13 help and answer your questions the best I can.

14 And then, again, I encourage you to send
15 in written comments if you have any. The public
16 notice describes just what we're looking for in
17 those comments, but if we've missed any information
18 that you think is important for the Public Utilities
19 Commission to consider when they're making their
20 permitting decision, please send those in.

21 And, again, you can do that by postal
22 mail, you can do it by e-mail to me, or I've got my
23 fax number on there as well. And so I encourage you
24 to take a look at that document. A lot of work went
25 into that and a lot information is about the project

1 and the alternatives that are contained in there.

2 I'll give one last opportunity if anybody
3 does want to speak on that document, and if not,
4 what we'll do is just take a quick five-minute break
5 and get set up for the hearing portion of the
6 meeting.

7 And it looks like there might be some
8 cookies left back there, but we'll get set up in
9 front here and then the judge can describe the
10 hearing process and how you can be involved in that.

11 Okay. Thanks. We'll take a five-minute
12 break and we'll call it back to order in a second.

13 (Public comment concluded.)
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Commenter 1 – Todd Humphrey

1 MR. LANGAN: As I say, I'll just leave
2 those in the order in which they were received here,
3 but everybody will get a chance to talk or provide
4 comments if you so choose. And I will ask if you're
5 interested in commenting now or at the hearing
6 later.

7 But Todd Humphrey is the first person.
8 Did you want to provide comments on the draft EIS or
9 would you like to --

10 MR. HUMPHREY: Both.

11 MR. LANGAN: And you can do both, yeah,
12 that's an option. Yeah, please come on up.

13 MR. HUMPHREY: Who do I address?
14 Todd Humphrey, H-U-M-P-H-R-E-Y. I guess on the
15 draft document I had a chance to review it and it's
16 pretty thorough. However, specifically for me there
17 was a lot that I have in a section of my land that
18 was not included which is right on County Line Road
19 (phonetic) and 650th Street is the area that I'm
20 focused in on, and I can provide you with a map or
21 details of that.

22 Additionally, what was not in the map and
23 maybe it's not known yet is what side of the road
24 the pole placement would be, that would affect a lot
25 of, I guess, my specific concerns. I also worry

Responses

Comment 1-1

Undeveloped parcels that are zoned residential are not included in the residence counts provided in the EIS. Text in Sections 6.3.2, Property Values, and 6.3.4, Zoning and Compatibility with Planning, has been supplemented with a discussion of potential impacts to future residential development.

Comment 1-2

Final pole placement would be determined during detailed planning, after a Route Alternative has been selected. Figures 2 through 5 contained in the EIS display the feasible centerline alignments that have been developed for each Route and Segment Alternative, including specific sides of each roadway for the feasible alignments.

1-1

1-2

Commenter 1 – Todd Humphrey

1-2
(cont.)

1 that that stretch of road from Highway 14 south of
2 County Line Road to 650th Street, there's a woods
3 there and there's a house.

1-3

4 And it would almost seem like the poles
5 would have to zigzag across the road many times,
6 which has an effect on aesthetics, as well as I
7 think it's more expensive, as well as it's uglier,
8 if you will, because you notice it more.

1-4

9 There was also something that I'm not
10 sure was covered in the document but at that
11 intersection of County Line Road and Highway 14
12 there's a stream and a wetland area there, what I
13 would think is a wetland area. And I know that
14 there was some talk in the document about wetland
15 areas, but I don't think that was specifically
16 addressed. And I don't know if a pole would impact
17 anything, but I guess if the objective is for
18 accuracy and comments, that would be one of them.

1-5

19 The other thing that I'd like to mention,
20 and I'm not sure how heavily it was mentioned in the
21 document, would be the population growth. As houses
22 develop, they're more likely to develop in the rural
23 land rather than on a busy road like County Road 15
24 or if you put the line down the 345 route, it's
25 there anyway, everybody passes by it.

Responses

Comment 1-3

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 1-4

The wetland described, located near the intersection of U.S. 14 and County Line Road, is an NWI wetland and is included in the acreage of wetlands identified in Table 6.2.4-1 in the EIS. A discussion of potential impacts to wetlands appears in Section 6.2.4 of the EIS. The stream described in the comment is Cascade Creek. A discussion of Cascade Creek and potential impacts to water resources appears in Section 6.2.3 of the EIS.

Comment 1-5

Text in Sections 6.3.2, Property Values, and 6.3.4, Zoning and Compatibility with Planning, has been supplemented with a discussion of potential impacts to future residential development. Please see response to Comment 1-1.

Commenter 1 – Todd Humphrey

Responses

1-5
(cont.)

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1 But if you put a new line in, that's
2 really going to mess up for the next 40 years where
3 the population is going to grow. So you might as
4 well put it where an existing traffic way is or
5 other utilities are.

6 So I think that's all I have for the
7 comments about the --

8 MR. LANGAN: Okay. Thanks very much.
9 You mentioned that you'd be able to provide a map.
10 Are you intending on also submitting written
11 comments or -- you've got a map right there. That's
12 perfect. That would be really handy. So you did a
13 good job describing the cross streets in your
14 comments, but that would help me.

15 MR. HUMPHREY: I can give this to you.

16 MR. LANGAN: Okay. Excellent. Thank
17 you.

18 MR. HUMPHREY: Thanks.

19 MR. LANGAN: Okay. And the next speaker
20 is Tim Horvei.

21 MR. HORVEI: I'd like to wait for now.

22 MR. LANGAN: Okay. And is it Horvei or
23 Horvee (phonetic)?

24 MR. HORVEI: Horvei.

25 MR. LANGAN: Okay. Thank you. I'll keep

Commenter 1 – Todd Humphrey

8

1 the registration cards up here and we'll recall
2 those when the judge opens the hearing.

3 Is there anyone else that would like to
4 provide comments on the draft EIS document?

5 Okay. Well, we had an afternoon session
6 here today and you've beat their comments by one in
7 the draft EIS portion, so good work. And please, I
8 invite you to provide your comments during the
9 public hearing portion.

10 Also, again, we'll accept written
11 comments through November 9th. They'll need to be
12 into me by the end of the day, 4:30 in the
13 afternoon. And, again, I accept e-mailed comments,
14 postal mail, faxes, all of that information is on
15 that meeting notice.

16 Also, based on the information that
17 you've got tonight if you get a chance -- and also
18 if you get a chance to look at the draft EIS if you
19 haven't yet and if any questions pop up between now
20 and the end of the comment period that you want to
21 ask before you submit comments, feel free to give me
22 a phone call or send me an e-mail, and I'm happy to
23 answer the questions the best I can.

24 And then after the comment period and
25 throughout the end of this process, if somebody has

Responses

Commenter 1 – Todd Humphrey

1 a question, just feel free and give me a call.
2 Last call for any comments on the draft
3 EIS.
4 MR. HUMPHREY: Can I make a comment?
5 MR. LANGAN: Yeah, please.
6 MR. HUMPHREY: I guess to my -- if you
7 will, to my peers, the document is pretty good, and
8 there's a nice summary table there. And I bet
9 there's not a lot of comments because not a lot of
10 people had a chance to look at it.
11 But we have time before the deadline, I
12 would look at that document and thumb through it.
13 There's a nice table in there that lists out a
14 summary of the different route alternatives and the
15 tally of who's affected or the number and the count
16 that's affected, which I guess I found that, you
17 know, one of my lots wasn't counted in that, so
18 that's the reason for this comment.
19 But we have a chance here in the second
20 part of this hearing or at the hearing, and I assume
21 there's a deadline for that, too?
22 MR. LANGAN: Yes, there is. It's the
23 same deadline actually, November 9th.
24 MR. HUMPHREY: So you can look at that
25 and see and kind of cast your vote, if you will, or

Responses

Comment 1-6

Thank you for your comment. It has been noted and included in the record for this EIS.

1-6

Commenter 1 – Todd Humphrey

Responses

1-6
(cont.)

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1 your opinion to the administrative judge so that he
2 knows that, hey, the people are concerned about
3 these routes.

4 MR. LANGAN: Thanks for that comment.
5 Yeah. And again, with this draft document, thanks
6 for saying it's informative, we certainly think it
7 is. And it is available online at our website, that
8 web address is in our notice that we have on the
9 back table there.

10 It's also available at local libraries.
11 We have some hardcopies, both paper copies and CD
12 copies. I think we probably have some copies left
13 that you can take with you tonight. Or, you know,
14 if eventually you decide you need a copy, just,
15 again, give me a call and I can send one out to you.

16 But we're certainly interested in your
17 comments on that document, they'll help us put
18 together the best document we can to hand off to the
19 Public Utilities Commission.

20 Okay. With that, we'll take just kind of
21 a short break here and get set up with the judge for
22 the hearing and begin that portion of the session
23 tonight. Hopefully there's some cookies left and
24 coffee for you all. So we'll just take a short
25 break and call this back to order once we're set up.

Commenter 1 – Todd Humphrey

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1 Thanks.

2 (Public comment concluded.)

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Responses

Commenter 2 – Minnesota Department of Natural Resources

Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-40



November 9, 2010

Matthew Langan
85 7th Place E., Suite 500
St. Paul, Minnesota 55101-2198

Re: Draft Environmental Impact Statement for the Pleasant Valley to Byron 161 kV Transmission Line Project [PUC Docket Number: TL-09-1315]

Dear Mr. Langan:

The Minnesota Department of Natural Resources (DNR) has reviewed the Draft Environmental Impact Statement (DEIS) for the Pleasant Valley to Byron 161 kV Transmission Line Project and offers the following comments.

2-1 Considering route comparisons provided in the DEIS, Alternative 1 appears to have the least overall impact to natural resources. Specifically, Alternative 1 has the least effect on wetlands, the least tree removal at Salem Creek, and avoids a crossing of the South Fork Zumbro River Wildlife Management Area (WMA). Impacts to rare species were described in the DEIS as comparable, with the exception of potential impacts to the state and federally listed threatened Prairie Bush Clover along Alternative 1. Further consideration of rare species will be important for all routes, and particularly important for Alternative 1.

2-2 The DEIS Table S-2 titled *Summary of Potential Mitigation Measures* includes the measure of surveying all likely habitat for Prairie Bush Clover, American Ginseng, and Valerian so that structure placement can be sited to avoid known occurrences. The DNR concurs with this recommendation for any of the routes considered. As stated in previous comment letters, if it is possible that the project will impact waterways, then impacts to aquatic organisms should also be addressed. The DEIS states that wetlands and waterways could be spanned. Impacts to rare species would be minimized provided the transmission line spans waterways and wetlands. This would include floodplains, which are potential habitat for the Wood Turtle. Given the presence of rare species (Wood Turtle, Ellipse, Ozark Minnow) that are vulnerable to deterioration in water quality, especially increased siltation, it is important that effective erosion prevention and sediment control practices be implemented and maintained near the rivers and creeks. The DNR encourages continued project planning to span waterways, wetlands and floodplains as much as possible. If spanning these areas is not possible, then botanical and mussel surveys should be completed in all likely wetland and waterway rare species habitats.

2-4 Surveys for rare species are recommended prior to a routing decision. The DNR encourages coordination regarding rare species surveys as early as possible in the route permitting process to (1) provide the most robust comparison of rare species along routes during environmental review and permitting, and (2) plan appropriate scheduling for any needed rare species surveys (some mussel and botanical surveys may be required by the DNR) because survey scheduling may be dependent on species-specific timeframes.

2-5 The DNR recommends that the FEIS include a description of potential direct and indirect impacts specific to the South Fork Zumbro River WMA. Descriptions of site-specific potential impacts and potential mitigation measures for public lands are recommended for this project and in all applicable transmission line environmental review documents to help inform agency and public review and to inform the License to Cross Public Lands and Waters Permit.



Responses

Comment 2-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 2-2

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 2-3

A discussion of the potential erosion and sediment control mitigation measures appears in Section 6.2.3 of the EIS, Water Resources, in the mitigation subsection.

Comment 2-4

While statutory timeframes do not allow for rare species surveys to be completed prior to a routing decision, surveys will be conducted prior to construction. If and when rare species are identified, the 400-foot route width would allow for flexibility in pole placement and construction access points such that areas containing rare species, if identified, can be avoided. A discussion of survey efforts appears in Section 6.2.7 of the EIS, Rare and Unique Natural Resources/Critical Habitat, in the mitigation subsection, and in Section 6.4.7 of the Applicant's Route Permit Application.

Comment 2-5

Text in Section 6.2.6, Fauna, has been supplemented with a discussion of potential impacts and mitigation measures at the South Fork Zumbro River WMA.

2-6

Commenter 2 – Minnesota Department of Natural Resources

The DNR supports mitigation offsetting lost functions and values for wetland impacts resulting from conversion of forested wetlands to non-forested wetlands.

Your consideration of comments provided for the Pleasant Valley to Byron Transmission Line Project is appreciated. Please contact me with any questions.

Sincerely,



Jamie Schrenzel
Principal Planner
Environmental Review Unit
(651) 259-5115

Responses

Comment 2-6

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 3 – Minnesota Department of Transportation



Minnesota Department of Transportation

395 John Ireland Boulevard
Mail Stop 130
Saint Paul, MN 55155-1899

Phone: (651) 366-4791
Fax: (651) 284-0592
Dave.Seykora@state.mn.us

November 8, 2010

Matt Langan – Planning Director
Office of Energy Security
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

Re: In the Matter of the Xcel Energy Applications for a 161 kV High Voltage Transmission Line (HVTL) Route Permit and a Certificate of Need (CN) for the Pleasant Valley to Byron Transmission Line Project in Dodge, Olmsted and Mower Counties.
PUC Docket Numbers: E002/TL-09-1315 and CN-08-992

Dear Mr. Langan:

The Minnesota Department of Transportation (Mn/DOT) submits the following brief comments regarding the Draft Environmental Impact Statement (DEIS) relating to the route permit application by Xcel Energy for a 161 kV High Voltage Transmission Line Route Permit and Certificate of Need for the Pleasant Valley to Byron Transmission Line Project.

The DEIS notes in the discussion on pages 101-105 that the intersection of U.S. 14 and 19th Avenue/280th Avenue was designated as a potential location for a future interchange in the 2004 TH 14 West Subarea Study, and that this location is the City of Byron's preferred site for the interchange. The DEIS further notes that Route Alternative 1 would run parallel to 19th Avenue/280th Avenue at this location and would limit placement options for a future interchange. Mn/DOT appreciates the comments by Xcel that it would seek a compatible design at the 19th Avenue/280th Avenue location to avoid conflicts with a future interchange. However, Mn/DOT continues to have concerns about limitations on future design presented by the presence of a transmission line at this location. The DEIS notes: "Use of Segment Alternative A for Route Alternative 1 would avoid the potential interchange location identified by the city of Byron" DEIS at p. 104. Given the nearby availability of an alternate crossing of U.S. 14 where an existing transmission line already crosses the highway, Mn/DOT believes that Segment Alternative A is the prudent alternative.

Thank you for your consideration of these comments. Please contact me at 651-366-4791 if you have questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "David G. Seykora".

David G. Seykora
Office of the Chief Counsel

cc: Thomas Hillstrom, Xcel Energy

Responses

Comment 3-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 4 – Scot Bjornson

From: Laurel [mailto:lbjornson@kmtel.com]
Sent: Tuesday, November 09, 2010 10:35 AM
To: Langan, Matthew (COMM)
Subject: Pleasant Valley/Byron Transmission line project

Mr. Matthew Langan:

My name is Scot Bjornson.

Concerning the proposed "alternative 345 route" from the Pleasant Valley to Byron Transmission line:

I'm 5th generation and my 3 kids are 6th generation on our family farm which is very important to us. (Lots of history here) We already have a 150 foot easement forced through this farm for the existing 345 KV line which is right on the west edge of my grove, yard and house. If this new "alternative 345" route is approved, while the poles themselves will be on the fenceline, the additional 35 foot easement will destroy most of my windbreak and shelterbelt for the prevailing winds. That grove has saved the barn many times in the summer from high winds and shields us from winter storms. An even greater threat to us is that the resulting additional 35 feet of easement for the proposed alternative route would then result in the east edge of the powerline easement being extremely close to the west edge of my house. And with "another" huge wind farm project scheduled to begin building all around me in 2012, we face the very real threat of yet a 3rd line coming through here from that project... and if "that" potential 3rd easement is forced through it would put this 6th generation house and farm in direct threat of eminent domain and loss of my house. That would destroy this place and I hope you can understand and consider what kind of weight and stress that puts on a man and his family who are proud to live on 6th generational family land. In fact, between this power line issue and the 2 years of fighting Mayo's railroad bypass which also trying to run about a hundred yards or so north of my house the stress has really damaged our quality of life recently... almost too much to bear. It's like there's a bullseye on this house or something.

I accept that times are changing and growing energy needs must be met, and when they started building wind farms here a few years ago I knew more powerlines would come. I hoped they'd go on the west side of the existing lines to reduce the threat to my house. But now here it is, right in my yard. With these wind farms popping up everywhere now my worst fears are facing me much sooner than I thought. And still more wind farms are coming. The wind companies are still calling me but I have not signed up. Meanwhile many of the landowners fighting EXCEL's "preferred route" along the county road are the same ones who want the wind farms and are just giddy and very excited about all the money they are going to be receiving from the turbines on their land... yet they don't want to be inconvenienced by having to look at any new powerlines along the county road where power poles have existed since 1950's. In other words "they want their cake and eat it too". I find it difficult to sympathize with their "visual inconvenience" when my actual home is under threat and I'll receive zero dollars from the wind farms making them rich and threatening my house. There's just something inherently wrong with that.

Lastly, I know this nation will need more energy transmission in the future. And there will always be conflict in where the powerlines will go. I would think EXCEL's engineers are highly qualified to make

Responses

Comment 4-1

Thank you for your comment. It has been noted and included in the record for this EIS. A discussion of the potential effects of the Project on wind breaks appears in Section 6.2.5, Flora, of the EIS. A discussion of the potential effects of the Project on health and safety appears in Section 6.1.6 of the EIS. The 400-foot route width requested for each Route Alternative would allow for flexibility in placement of the transmission line and pole structures to avoid or minimize potential impacts to residential tree lines.

Comment 4-2

A discussion of the Project's proximity to structures appears in Section 6.1.1 of the EIS. No residential homes would be located within the Project ROW and no residences would be displaced due to the Project. For the feasible alignment evaluated for Route Alternative 3, no residences would be located within 200 feet of the centerline of the transmission line; four residences would be located between 201 and 300 feet from the feasible centerline of the transmission line.

4-1

4-2

Commenter 4 – Scot Bjornson

4-3

such decisions. The engineers in this case have placed their “preferred route” along the county roadway for sound reasons, not the least of which is convenience of construction and maintenance, easy access during emergency repair in winter and no muddy fields to tear up or crops to flatten and pay for in the summer while fixing lines come to mind. But surely there are other less obvious but very important “technical” reasons for the preferred route, like avoiding redundancy and other technical issues that the public sector is not able to think or plan ahead of. Engineers are trained to make excellent decisions and results for EXCEL Energy. This in turn produces better results for ALL consumers (thousands of them) not just the 20 or so emotional complainers opposing EXCEL’s carefully chosen preferred route. No doubt EXCEL’s “preferred route” will serve the greater public far better in times of emergency and power outages. In summary, EXCEL’s trained professionals have carefully chosen the preferred route along the county road to maximize service to many thousands of people. I would hope that this carefully calculated decision making process on where to put the “preferred route” in order to build solid infrastructure for the future and greatest public benefit is not thwarted by 20 or so emotional people who oppose the preferred route simply because they don’t want the inconvenience of “looking at” new power poles in the same ditches that have always held old power poles. As I understand it not a single house is at risk along EXCEL’s preferred route, but the “alternate 345 route” threatens 2 houses within one mile of me...my house and Denny Lindquist’s house 1 mile north of me. Personally, I’d put up with looking at newer, bigger power poles in my roadside ditch any day if an alternate route threatened anyone else’s household... but the 20 or so opposers to the preferred route don’t consider any of that...they just don’t want the perceived eyesore of bigger, newer poles in their ditches.....my risk is far greater...I’m just trying to keep my family home and heritage safe from eminent domain condemnation in the near future. Thank you for your consideration and I hope this counts for something.

4-4

Very respectfully, Scot Bjornson

11913 100 St SW
Hayfield, MN 55940
(507)365-8628

Responses

Comment 4-3

Text in Section 5.3 of the EIS has been modified to clarify the ability of the Project to provide reliability and redundancy to the existing 345 kV transmission line.

Comment 4-4

No residential homes would be located within the Project ROW and no residences would be displaced due to the Project. For the feasible alignment evaluated for Route Alternative 3, no residences would be located within 200 feet of the centerline of the transmission line; four residences would be located between 201 and 300 feet from the feasible centerline of the transmission line.

Commenter 5 – Corey Carlson

From: Corey Carlson [mailto:coreyc86@yahoo.com]
Sent: Wednesday, November 03, 2010 11:59 PM
To: Langan, Matthew (COMM)
Subject: Comments on Pleasant Valley to Byron Transmission Line (PUC Docket #E002/TL-09-1315 and CN-08-992)

Matt,

I tried to make these comments online at <http://www.energyfacilities.puc.state.mn.us/publicComments.html>, but was not able to since the project was not in the Project drop-down list. So, I'm emailing you my comments and I will send the same comments to Judge Cervantes.

Thanks,
Corey

These comments are related to Pleasant Valley to Byron Transmission Line Project (PUC Docket #E002/TL-09-1315 and CN-08-992).

Impacts:

I am very concerned with the use of Route Alternative 1 on this project (the applicant's preferred route). The primary reasons are related to the impacts this route will have on the people living near this route. These impacts range from safety to aesthetics to property values and have been documented in comments from myself and others. This Route Alternative 1 has issues with its proximity to a high-pressure gas line in the south, a future interchange on Highway 14 in the north, and existing distribution lines throughout the route (with the possibility of this 161kV transmission line on one side of the road and distribution lines on the other). Route Alternative 1 would be built very near human residences and its possible effects of long-lasting exposure to the electrical fields of this line on humans may not be fully understood.

I believe the Route Alternative 3 (near the 345kV line) would be a better choice for this project.

The applicant made a comment that they preferred Route Alternative 1 because of the crossing of Salem Creek would require less vegetation than Route Alternative 3. However, I contend that the impact of the crossing by Route 1 would have a greater impact since it is much more visible than Route 3 and the types of vegetation on Route 1 (including yellow lady slippers) may be more sensitive than that on Route Alternative 3.

Responses

Comment 5-1

Thank you for your comment. It has been noted and included in the record for this EIS. Section 6.1.6, Safety of Health, of the EIS has been supplemented with a discussion of the potential impacts of locating Route Alternative 1 in proximity to a natural gas pipeline.

Commenter 5 – Cory Carlson

Mitigation:

5-1
(cont.)

The serious impacts of this project on the people can be mitigated by using Route Alternative 3 for this project.

5-2

According to comments made at the public hearings in Byron, the applicant's main reluctance to using Route Alternative 3 is due to redundancy. However, as outlined in Draft Environmental Impact Statement (DEIS) on page 18, the existing 345kV line and the proposed 161kV line serve different purposes and "the Project was not proposed to provide reliability or redundancy to the existing 345kV transmission line". The DEIS goes on to state "the Project would not be a redundant substitute to the existing 345kV transmission line and co-location of the transmission lines on overlapping ROW would not violate any NERC Reliability Standards". See page 18 of the DEIS for more information on why redundancy is not as major a factor as the applicant suggests.

5-3

Also, the applicant made a comment during the public meetings held in Byron on October 26th that the cost difference between Route Alternatives 1 and 3 were not an issue. Since this line is expected to last decades and the cost difference should be considered over time, any initial cost difference should not outweigh the impacts on the people.

Responses

Comment 5-2

Thank you for your comment. It has been noted and included in the record for this EIS. Text in Section 5.3 has been modified to clarify the ability of the Project to provide reliability and redundancy to the existing 345 kV transmission line.

Comment 5-3

Thank you for your comment. It has been noted and included in the record for this EIS. Text in Section 1.8 has been modified with a cost estimate for Route Alternative 3.

Commenter 6 – Tim Clemens, Greenway Co-op

November 8, 2010
Greenway Co-op
P.O. Box 6878
Rochester, MN 55903

Matthew Langan
85 7th Place E, Suite 500
St. Paul, MN 55101-2198

Dear Mr. Langan,

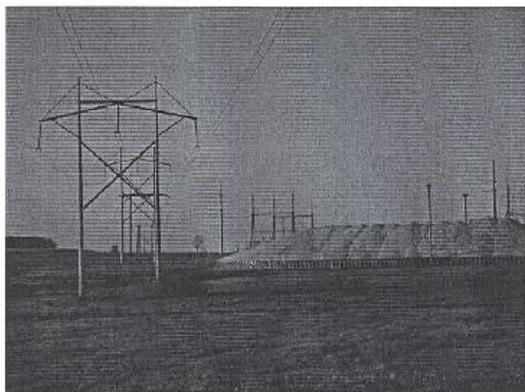
Regarding (OAH) Docket Number 16-2500-21470-2: Greenway Co-op owns land in the Byron industrial park across the road from the Byron substation where the proposed Pleasant Valley to Byron 161 kV transmission line will end. All of the alternate routes will significantly impact the current and future use of our property in the industrial park. (Our land borders the existing power line to the East - directly across the road from the Byron substation).

Currently there is a large corn bunker on the NW corner of the property that is approximately 50' away from the existing power line. We are concerned with the possible 80' easement required for the alternate routes as it would significantly limit the current use and also the potential to further develop the property.

The "Preferred Route" coming in from the west would have no impact on our property so that is the route we would support.

Sincerely,


Tim Clemens



Picture taken from the frontage road in the industrial park, looking North towards the Byron Substation. The land to the right (east) of the power line is owned by Greenway Co-op.

6-1

Responses

Comment 6-1

Thank you for your comment. It has been noted and included in the record for this EIS. The Greenway Co-op property is located within an area for which the Applicant requested an expanded route width to work with the occupant to avoid potential effects to commercial and industrial activities. It is noted that Route Alternative 2, Route Alternative 3, and Segment Alternative A have the potential to be located on property occupied by Greenway Co-op.

Commenter 7 – Joe Holecek

From: Joseph Holecek [mailto:joeboncek@live.com]
Sent: Sunday, November 07, 2010 8:27 PM
To: Langan, Matthew (COMM)
Cc: Jerry Holecek
Subject: 161kV Transmission Line

Matthew,

I have some questions and concerns about the Pleasant Valley to Byron 161kV Transmission Line. I used to live at 27282 650th Street which is along the Preferred Route for the 161kV line.

My son and his young family now live at that address. I also own ag land next to that address.

I attended the mid-day meeting at the Byron Legion on October 26. One gentleman explained how he got shocks from his tractor steering wheel when he drove under the current high voltage line that goes through his ag land. I understand that this is not "stray voltage" but rather voltage generated on metal objects that happen to be inside of the electromagnetic field around a high voltage power line. I do not know how strong this electromagnetic field is relative to distance.

My major question/concern is that since the Preferred and Secondary Routes pass near-by or over many homes, how does this electromagnetic field affect the people who live in these homes? Also, how does this electromagnetic field affect all of the electrical and electronic equipment in around these homes? Again, my son and his young family live next to 650th street along this proposed line.

Another question that I have is relative to the number of wires on this line. I believe the plan is for 161kV to be carried on 3 wires and the poles are like the ones that run along Hiway 14 from Byron to Rochester. Do the poles for this 16kV line have a capacity to carry additional wires in the future? If so, will the people who live next to this line have any recourse but to deal with even stronger electromagnetic fields around this line in the future?

Sincerely,
Joe Holecek

7-1

7-2

Responses

Comment 7-1

A discussion of the potential effects from EMF appears in Section 6.1.6 of the EIS, Safety and Health. A discussion of the potential for transmission lines to interfere with household electronics appears in Section 6.1.4 of the EIS, Interference with Utility Systems and Public Services. A discussion of the potential effects on farm and other metal equipment appears in Section 6.3.3 of the EIS, Land-Based Economies. No residential homes would be located within the Project ROW or displaced due to the Project. As such, the nearest distance a residential home would be located to the transmission line is 40 feet. In one location along Route Alternative 1, south of the intersection of County 15 and 660th Street, a residence and adjacent shed located across County 15 are each located within 40 feet of the roadway ROW on either side of the road, such that placement of the transmission line on either side of County 15 could require removal of a building. However, the feasible centerline developed by the Applicant would cross County 15 at an angle, such that the Project ROW would be centered over County 15 during the crossing and the existing structures could remain in place.

Comment 7-2

With the exception of a 1.5 mile segment of Route Alternative 1, the Project structures would be designed to hold one circuit. If Route Alternative 1 is constructed, a portion of the route would be designed to allow for the Project to be double-circuited with a proposed 138 kV transmission line for approximately 1.5 miles. The summary of the EIS has been modified to include a discussion of the location of the double-circuited portion of Route Alternative 1. The single circuit design for the remainder of the Project would not be capable of being retrofitted to hold another circuit. Any future proposals to co-locate a new transmission line near the Project would be required to undergo an environmental review process. A route permit from the PUC would be required for a new transmission line.

Commenter 8 – Todd Humphrey

From: Todd Humphrey [mailto:thumphrey@endeavor.com]
Sent: Thursday, November 04, 2010 7:50 PM
To: Langan, Matthew (COMM)
Subject: RE: Pleasant Valley to Byron Transmission Line

Hi Matt....

Attached are my comments, they may be intermingled between what is needed for the report and what is needed for the judge.

Additionally, I am having troubles scanning in the document to show the lot that was not factored into the draft. It is in the NE corner of my 80 acres across from the Rauns (716 120ave SW Bryon.. on county line road north of 650st and south of hwy 14).

Is there anything else that you can think of that I need to represent "the people" that are effected or any suggestions for me to tell the judge. I think it boils down to balancing the need for a back up that option 1 and the number of people affected. Currently the line in not backed up and currently a utility is adding an additional line to the poles from Rochester to Byron. If the need for a backup was so great, you would think they would put different poles up. Additionally, I think it is more likely that the poles next to a road would be in more of harm's way that in the middle of the field line non-preferred routes.

Thank you for your help.
Todd Humphrey
507-216-0095

Responses

Comment 8-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 8 – Todd Humphrey

After review the *draft* of the Xcel Energy Pleasant Valley to Byron 161kV Transmission Line. My understanding is the utility has submitted its proposal to the State for consideration and the utility has its own business interests in choosing their preferred. The State represents the people (both current residence and future residence of the area) that would be affected by the utilities preferred route.

In addition, the document does not consider the following factors:

- 8-2
- 8-3
- 8-4
- 8-5
- 8-6
1. There is an additional impact that was not addressed. There is a building site (lot) down in the NE corner of my field. It is located about 1 mile south of HWY 14 on County line road, or the west side across for the house on the east side.
 2. The document did not detail the placement of the poles just south of HWY 14 down County line road. Any pole placement on my property would affect its value both in terms of resale as well as current income derived from farm land lease. This should be factored into the pros and cons of the “preferred route”.
 - a. Intuitively, to navigate down County Line road, the line would have to cross the road several times.
 - b. There is additional economic impact if the poles are placed on my land in terms of resale value, land rent income would decrease because of obstructions and decreased tillable anchors.
 - c. There is a woods south on County line road that would be disrupted, either by the removal of trees or the fact that the line would have to cross over the road a extra times to avoid it. Crossing over the road is more dangerous the less aesthetic.
 3. Where the line crosses the intersection of HWY 14 and County Line road there is a wet land on the south side of HWY14. This is a conservation issue. The Department of Natural Resources should be contacted.
 4. There is an additional impact to take into consideration population. New houses are more likely to be built on the area just south of WHY 14 and County line road than other crossing.
 5. The “preferred route” would also disrupt agri-tourism business and future potential interchange.

The above items take into consideration MN Administrative Rules:

7850.4100 FACTORS CONSIDERED.

In determining whether to issue a permit for a large electric power generating plant or a high voltage transmission line, the commission shall consider the following:

A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values (i.e. rural living, poles belong on a major road), recreation, and public services

Responses

Comment 8-2

Please see response to Comment 1-1, which addresses the same concern.

Comment 8-3

Please see responses to Comments 1-2 and 1-3, which address the same concern.

Comment 8-4

Please see response to Comment 1-4, which addresses the same concern. The Minnesota Department of Natural Resources has reviewed the DEIS and provided comments that are included in this appendix.

Comment 8-5

Please see response to Comment 1-5, which addresses the same concern.

Comment 8-6

A discussion of the potential for Route Alternative 1 to disrupt an agri-tourism business and a future potential interchange for U.S. 14 appears in Table S-1 and Sections 6.3.3, 6.3.5, and 6.3.6 of the EIS.

Commenter 8 – Todd Humphrey

- 8-7 | *(650th street and County Line is not plowed often in the winter and if a line needs to be serviced during a snow emergency this could cause problems and delays) ;*
- 8-8 | *C. effects on land-based economies (i.e. land rent for farming, building site, forestry), including, but not limited to, agriculture, forestry, tourism, and mining; (Tweite's business would also be affected)*
- 8-9 | *E. effects on the natural environment, including effects on air and water quality resources and flora and fauna; (the pole placement in the wet land south of 14 at County Line)*
- 8-10 | *G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects (there are other routes that have less impact!), and could accommodate expansion of transmission or generating capacity;*
- 8-11 | *H. use or paralleling of existing rights-of-way (other routes options use this), survey lines, natural division lines, and agricultural field boundaries;*
- 8-12 | *J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way (other routes could take advantage of current lines and rights-of-way);*
- 8-13 | *Using the "Cross over Route" (orange on Appendix A figure 7) would be avoid issue 1 and 3 above, but still would be detrimental to likely new house/developments as farm land goes residential in the decade to come and pole placement would affect the income and market value of the farm land.*
- 8-14 | *In general, please consider people that live by a major road (or train track) should expect utility development and would have less of an economic impact their property value. Placing lines along County line road and 650th street would decrease both current and future property values and use of land (farming).*
- 8-15 | *There was a potential route that was not considered in the document that I feel should be considered. The route would follow the rail road tracks from the Byron substation and cross HWY 14th at Dodge County 15. The agreement that has been made against this is that some day may be developed with exit ramps at some time in the future. I am not sure of the time frame of this possibility; however the poles could be placed in anticipation of the exit ramps and solves the problem. Additionally this route would only require on corner pole (North of HWY14) compared with at least two corner poles if the line crosses and continues down County line road. Further the section from HWY 14 to 650th street down County Road 15 would have less crossovers and effect less current residents. I assume since this is a draft document that the State could require/request that the Utility to use or explore that option.*

Responses

Comment 8-7

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 8-8

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 8-9

Please see response to Comment 1-5, which addresses the same concern.

Comments 8-10 through 8-14

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 8-15

The alternative segment described was evaluated by the Applicant prior to the development of Route Alternatives 1 and 2, and is the combination of Segments 03, 06, and 07 identified in Appendix C of the route permit application. This segment alternative was eliminated from consideration by the Applicant because of the route's proximity to a cluster of residences located near the intersection of County Highway 34 and County Highway 15, west of the city of Byron. Compared with Route Alternative 1, use of the alternative segment described could result in 10 additional residences located within 300 feet of the transmission line centerline, for a total of 35 residences located within 300 feet of the centerline for the entire route. Additionally, the Applicant noted in the route permit application that use of the alternative segment would require additional tree removal adjacent to an existing cleared ROW (Xcel Energy, 2009a). The segment alternative was not identified during the EIS scoping process and was not evaluated in the EIS.

8-16

Commenter 8 – Todd Humphrey

Clearly route option 3 has the less impact on the people and future people. This route seems to make the most sense for the people and the cost does not significantly more. I would imagine accounted for over the 40 year life time that the line costs differences between the routes should not be a factor. There are less effected houses and less potential for health risks, stray voltage and electro-magnetic fields. .

Responses

Comment 8-16

Thank you for your comment. It has been noted and included in the record for this EIS. Text in Section 1.8 of the EIS has been modified to specify the estimated cost of Route Alternative 3.

Commenter 9 – Margaret Kirchner

Dexter, Mn. 55926

November 1, 2010

Matt Langan

Office of Energy Security

85 7th Place East, Suite500

St. Paul, Mn.55101-2198

Re: Pleasant Valley Transmission Line PUC Docker Number:E002/TL-09-1315 and CN-08-992

I live on 680th Ave. which on the preferred route for Xcel to put these lines. I am NOT signed up with the Pleasant Valley Wind Farm project and I do NOT want the lines to go down this road and by our home. It would be too close, I don't care which side of the road they put the lines, it is still the same! I could see this coming and therefore chose NOT to sign a contract. I am not committed to them for anything. I worked for Olmsted County for over 24 years, and served on Mower County Planning and Zoning Comm. for 7 years, so I was a little more aware of the consequences.

9-1

With their current plans, they would be putting one pole right south of our house and then right north of our shelter belt which would be close to my metal garage, and also my neighbor's, (Gronseth) machine shed. Both of these buildings would get stray voltage from these lines, making it dangerous to be in them. We planted our shelter belt around 40 years ago and waited many years to enjoy the benefits of it. I do not want to lose any of those trees. They have also hinted they would probably take my big Oak trees down from my front yard. Do you realize how long it takes to get trees to this maturity? Where they plan to put a pole south of my house is a lot we have been grooming to put a new house for us or one of our family one day.

9-2

9-3

Like I mentioned, I am not signed up with Pleasant Valley Wind farm project and am not receiving any money from them. I don't want the lines to go and use up all the good prime farm land in the area. The other routes would use less prime farm land. You've all been all over the U.S. How much farm land is there? This is top notch soil here in this area. When you get closer to Rochester, there is much more rock and little top soil as your maps show.

It is my understanding RES will probably have lines on the same poles. Res has handled this whole thing like a bunch of nit-wits. I talked with them in the summer of 2008. All that they told me or any of the others in this area was "Look, it will be an extra paycheck for you and it's only for the wind". Nothing was mentioned about the downside; the amount of land these turbines take, the cement and rod they put in the ground, or the transmission lines it would take to move this electricity.

I've mentioned this to you before, and I don't want to keep repeating myself, or expect sympathy, but I had just lost my husband that spring, so this was one more decision to be made on top of everything



Responses

Comment 9-1

A discussion of stray voltage appears in Sections 6.1.6 and 6.3.3 of the EIS. Text in Sections 6.1.6 and 6.3.3 has been supplemented with information to clarify that transmission lines do not, by themselves, create stray voltage. Transmission lines, however, can induce stray voltage on a distribution circuit that is parallel and immediately under the transmission line. Induced voltage between a transmission line and distribution circuit only occurs in the immediate vicinity of the distribution circuit and does not travel along the transmission or distribution line to surrounding buildings.

The Applicant has requested an expanded route width near the address discussed. Figure 2 of the EIS has been modified to display the expanded route width and revised feasible alignment for Route Alternative 1. The expanded route width would allow for an alignment to the west of the Gronseth residence to allow the Project to be double-circuited with a proposed 138 kV transmission line for 1.5 miles.

Comment 9-2

A discussion of the potential impacts from the Project on flora, including tree lines surrounding residences, appears in Section 6.2.5 of the EIS.

Comment 9-3

Thank you for your comment. It has been noted and included in the record for this EIS.

9-3
(cont.)

Commenter 9 – Margaret Kirchner

else; but I talked to a lawyer who pointed out many things RES hadn't told me. Now, so many of my neighbors say they were blind-sided; and they were. Now they find out they have no control over what Res does as far as the power lines, etc., as that is what the lease gave them permission to do.

Please consider one of the others as the route to go. It will work out for the best in the end.

Sincerely,



Margaret Kirchner

31973 680th Avenue,

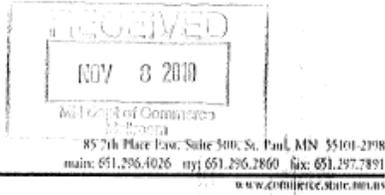
Dexter, Mn. 55926

E-mail: mkkirchner123@gmail.com

Responses

Commenter 10 – Mark Kraetsch

Responses



DRAFT EIS PUBLIC COMMENT SHEET

Pleasant Valley to Byron Transmission Line Project

PUC Docket Number: E002/TL-09-1315 and CN-08-992

Name: Mark Kraetsch Representing: people on
Route AIT, 3
Address: 27721 State Hwy 30 Email:
Hayfield, MN, 55940
507-365-8019

Comments: See attached pages and map

Please submit comments by 4:30pm, November 9, 2010 to:

Matthew Langan Email: matthew.langan@state.mn.us
Minnesota Dept. of Commerce Phone: 651-296-2096
85 7th Place East Fax: 651-297-7891
Suite 500
St. Paul, MN 55101-2198

Commenter 10 – Mark Kraetsch

Responses

11-5-2010

P. 1

10-1

My name is Mark Kraetsch. I live at 27721 State Hwy. 30 Hayfield, MN. 55940. I also own a house at 27754 State Hwy. 30 Hayfield, MN. 55940. Both homes as well as the farmland that I own are located on Route alt. 3. I do understand that no landowners or home owners want a new power line on or near their property. This power line is being built so that wind farm developers and owners can profit from it at our expense. Very few landowners along alt 3, have signed turbine leases as we already understand and feel the negative aspects of having large electric utilities going through our property. This is not the case for many of the land owners on routes 1 and 2, who have signed turbine leases, therefore profiting from wind turbines, yet do not want the power lines associated with the wind farms located on their property. People on routes 1 and 2 want the utilities to be forced to use Route 3 ~~with~~ a route that the utility co. is totally against for engineering and reliability reasons.

10-2

Please take the Engineers Expert Knowledge Seriously. Do not let a few peoples emotions force the utilities to use a route that is very risky and dangerous to our countrys reliable electric service.

In The fall of 1991, The 345 power Lines on my property as well as north and south of me went down. I believe that a total of 35 miles of The 345 was completely destroyed and had to be totally rebuilt from ground zero. IT was a real disaster and took many, many months to rebuild. IT would have been an even

Comment 10-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 10-2

Thank you for your comment. It has been noted and included in the record for this EIS. Text in Section 5.3 has been modified to clarify the ability of the Project to provide reliability and redundancy to the existing 345 kV transmission line.

Commenter 10 – Mark Kraetsch

P. 2

10-2
(cont.)

Worse disaster had this 161 line been next to it for it surely would have been destroyed as well. The risk and danger are very real. What happened once can happen again.

10-3

There is also a large wetland area on the north end of my property that would need a pole located in the middle of it. It would be an monumental disaster to disturb or destroy this protected land. ~~That~~ The design of the 345 line is such that they were able to greatly increase the span over this area so that these structures could be placed on either side of the wetland. I understand that the 161 line is not capable of such a span.

10-4

All of this construction caused extreme damage to the land as well as the crops. Most of this would have been averted had the power line been along roads.

10-5

Further more I understand that if ALT. 3 is used, the new poles would be placed 5 feet inside of my property line, therefore they would be in the existing ROW of the 345 line. Because of this I would not even be eligible for compensation for the new line, yet I would be dealt a devastating blow to my property values and desirability, having two huge major ^{power} ~~power~~ lines in close proximity on my property. The magnetic and static fields which would surround these two lines would be very intrusive. This is more than any land owner should be penalized for in the name of progress from which individuals with turbine leases and large wind corporations

Responses

Comment 10-3

The wetland described, located north of the intersection of Minnesota Highway 30 and the existing 345 kV transmission line, is an NWI wetland and is included in the acreage of wetlands identified in Table 6.2.4-1 in the EIS. A discussion of potential impacts to wetlands appears in Section 6.2.4 of the EIS. The Section notes that due to the length of wetlands crossed by Route Alternative 3, wetland complexes may not be spanned.

Comment 10-4

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 10-5

Approximately 35 feet of new ROW would be required for Route Alternative 3. Affected landowners would be compensated for any new ROW established through an easement agreement with the Applicant.

Commenter 10 – Mark Kraetsch

P. 3

10-5
(cont.)

will extract huge profits at our expense.

10-6

I also ask you to take note that people along Route ALT 3 were notified of this possible route alt only about a month ago, whereas the folks along the 2 other routes have had a ~~year~~^{year} to prepare their objections. This explains why people on route alt 3 haven't had a chance to publicly object to the project.

I beg you to take the expert Engineers' conclusions seriously when they state that ALT 3 is the most acceptable route of the 3 choices.

10-7

Those of us on alt 3 do matter and do object to having to make yet another unfair sacrifice so that others can profit from our misfortunes.

I would also like to point out what I believe to be the best option of all. This option is explained in the last paragraph in section 7.6 of the Draft Environmental Impact Statement. It explains that the need could be met by upgrading an existing 161 line. Although the cost is higher, I believe it is the best choice. The line is already there so no new land owners would be affected. Our beautiful landscape would not be polluted by yet another massive and ~~unnecessary~~^{unnecessary} power line. I don't believe the utility should be automatically be awarded the cheapest and easiest choice. They should use some of the huge profits that they will make from this project and upgrade their existing line. The upgrade of the existing 161 line is the obvious choice for the American people.

Thank you,
Mark Kraetsch
Mark Kraetsch - citizen

Responses

Comment 10-6

Route Alternative 3 was identified as a potential Route Alternative to be identified in the EIS during the scoping process. The Route Alternative was not proposed by the Applicant or developed at the time of planning meetings held by the Applicant in the Project Area. Landowners located in proximity to Route Alternative 3 were notified of the Route Alternative prior to the DEIS public meetings and DEIS comment period.

Comment 10-7

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 10 – Mark Kraetsch



Responses

Commenter 10 – Mark Kraetsch

Pleasant Valley to Byron Transmission Line
Draft EIS

10/04/2010

Energy, 2009b). In order to transmit renewable energy either by the generator or under a purchased power agreement, significant transmission infrastructure would be necessary (Xcel Energy, 2009b). Any new transmission lines constructed under this alternative would negate any benefit of a purchased power alternative over the Project. In addition, an alternative that relied on purchased power would not provide the infrastructure needed for the existing Grand Meadow and Wapsipinicon wind farms to transmit their full generating capacity to the system.

7.5. Conservation

Energy conservation efforts could reduce the need for electric generation and thus decrease the need for additional future generation outlet capacity in the Pleasant Valley Substation area. However, these measures would not provide the infrastructure needed for the existing Grand Meadow and Wapsipinicon wind farms to transmit their full generating capacity to the system.

7.6. Existing Line or System Improvements

The Applicant evaluated the possibility of double-circuiting the Project 161 kV transmission line with the existing 345 kV transmission line that runs between the Pleasant Valley and Byron Substations. Under a double circuiting scenario, the 161 kV line would share the existing pole structures of the 345 kV line and no new structures or ROW would be required. Double circuiting is used when two circuits serve different functions or where high capacity, but not redundancy, is required (Xcel Energy, 2009a). Where redundancy is required, double circuiting would jeopardize reliability because of the greater risk that an outage would occur on both lines simultaneously (Xcel Energy, 2009a).

Double circuiting of the Project with the existing 345 kV transmission line would approximately triple the cost of construction (Xcel Energy, 2009b). In addition, double circuiting would require suspending service on the 345 kV line, which provides bulk transmission support to the Rochester area (Xcel Energy, 2009b).

The existing 345 kV line is constrained under a Special Protection Scheme (SPS) that requires curtailment of generation at the Pleasant Valley Substation when there are high north-south flows on the transmission line. If the Project and 345 kV transmission lines were double circuited, NERC would consider both of the circuits to be a single contingency type of event and generation would have to be curtailed on the new double circuited line. Thus, no additional outlet capacity would be achieved through double circuiting and the stated need of the Project would not be achieved. (Xcel Energy, 2009a)

The 2008 RIGO analysis evaluated a transmission alternative to the Project that would not require a new 161 kV transmission line. The stated need for additional generation outlet capacity could be met through upgrading approximately 50 miles of existing 161 kV lines and the construction of a second Pleasant Valley 345/161 kV transformer initially, followed by a 10 mile upgrade of existing 161 kV lines by 2016. Total cost of the

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Commenter 10 – Mark Kraetsch

Pleasant Valley to Byron Transmission Line
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Improvements is estimated at \$21 million and approximately 60 miles of construction would be required (Xcel Energy, 2009b).

Under the transmission line upgrade alternative, no new ROW would be required. However, impacts to land cover, agricultural use, flora, and fauna could occur when the existing ROW is re-disturbed during upgrade activities. Construction and ROW clearing activities would be similar to those identified for the Project in Chapter 6, but would occur for a length of 60 miles.

7.7. Generation Alternatives

The stated need of the Project is to increase the transmission capacity to serve the needs of two 100 MW wind farms operating in Mower County and transport renewable generation from the Study Area to a load that is generally north of the location of renewable generation. An increase in generation would not provide the infrastructure needed for the existing Grand Meadow and Wapsipinicon wind farms to transmit their full generating capacity to the system.

Responses

Commenter 11 – Xcel Energy



October 26, 2010

VIA ELECTRONIC FILING AND U.S. MAIL

Matt Langan
Department of Commerce, Office of Energy Security
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

Re: *In the Matter of the Application for a Route Permit for the Pleasant Valley to Byron 161 kV Transmission Line Project*
MPUC Docket No.: E002/TL-09-1315

Dear Mr. Langan:

Northern States Power Company, a Minnesota corporation (“Xcel Energy” or the Company”) submits the following comments regarding the Draft Environmental Impact Statement (“DEIS”) issued by the Department of Commerce, Office of Energy Security (“OES”) on October 6, 2010. Xcel Energy has reviewed the DEIS and appreciates the time and effort that the OES has put into completing the DEIS. Xcel Energy provides the following minor suggestions regarding additional information or corrections that would be appropriate to supplement in the Final EIS.

A. Possible Future U.S. Highway 14 Interchange

In several places, the DEIS states that Route Alternative 1 would “limit placement options” for a possible highway interchange at U.S. Highway 14 and 19th Avenue/280th Avenue. DEIS at pp. S-3, S-9, S-10, 93, and 104. Xcel Energy believes that a compatible design can be developed prior to construction such that the proposed transmission structures would not interfere with this possible future interchange. Moreover, if such a compatible design is not achievable given the preliminary nature of the plans for this interchange, there could be a negotiated relocation at a later date to accommodate this interchange.

B. Pipeline Safety

The DEIS states that there is a low potential for simultaneous leak from the pipeline and fault on the transmission line that could result in ignition if a transmission line is not located at a minimum safe distance from the natural gas pipeline. DEIS at pp. S-6 and 43.

Xcel Energy would like to emphasize that the possibility of this type of ignition situation is **extremely** uncommon due to the safety mechanism installed on the pipeline to prevent leaks and on the transmission line to prevent faults. In the rare event that a pipeline leak goes

Responses

Comment 11-1

Text in Sections 6.3.4 and 6.3.6 and the Summary has been supplemented to note that pole placement near the potential interchange site could be relocated at a future date based on negotiations with Mn/DOT.

Comment 11-2

Text in Section 6.1.6 and the Summary has been modified to clarify that a simultaneous release from the natural gas pipeline and fault on the transmission line would be extremely rare, and the potential for such an event would be further reduced by installation of safety mechanisms on the pipeline and transmission line.

11-1

11-2

Commenter 11 – Xcel Energy

Matt Langan
October 26, 2010
Page 2

11-2
(cont.)

undetected, a transmission line is not a likely source of ignition. Xcel Energy requests that this section of the DEIS be revised to state that an undetected pipeline leak is very rare and that a transmission line is not a likely source of ignition.

11-3

More common is the potential for interference with the pipeline corrosion protection system and/or for shock potential at above ground metal components such as valves or test stations. These issues are well understood and easily avoided. Xcel Energy commissioned an AC interference study to understand the interactions between the pipeline and transmission line so that the possibility of these situations can be eliminated. The study results, which are attached as Attachment 1, conclude that separating the transmission line and natural gas pipeline by at least 42 feet and employing several simple and inexpensive techniques will remove the potential interference and shock potential. These techniques include: installation of a lower impedance shield wire between Dodge Mower Road and the Pleasant Valley Substation, installation of proper grounding at the pipeline valve station or pipeline, and proper pole placement near the pipeline. These measures will cost less than \$50,000 and do not result in a material change to the cost of the Project. Xcel Energy requests that the portion of the DEIS concerning shock potential (DEIS at p. 43) be revised to state that the potential for shocks can be eliminated through the use of the techniques noted above.

11-4

C. Route Alternative 3

Section 5.3 of the DEIS discusses Route Alternative 3 which would place the proposed 161 kV line along the same right-of-way as the existing Pleasant Valley – Byron 345 kV transmission line. Xcel Energy has several suggested clarifications for the portion of this section that discusses the reliability issues associated with such a configuration. These clarifications are addressed in the pre-filed direct testimony of Jason Standing which is enclosed as Attachment 2. Xcel Energy requests that this section be updated to reflect these clarifications.

Thank you for considering our comments. Please contact me at 613-330-6538 if you have any questions or need any additional information.

Sincerely,

/s/ Tom Hillstrom

Tom Hillstrom

Enclosures

Responses

Comment 11-3

Text in Section 6.1.6 has been supplemented with the results of the AC interference study commissioned by the Applicant. Text in Section 6.1.6 and the Summary has been supplemented with a discussion of mitigation measures recommended by the study.

Comment 11-4

Text in Section 5.3 has been modified based on the clarifications provided in the direct testimony of Jason Standing and to note that lightning strikes or wind blown debris are more likely causes of outage events than pole collapse. However, the Applicant has been unable to provide recent examples of such events occurring or the probability of a single contingency event occurring for the Project. The Section has been supplemented with transmission structure failure information provided in the testimony of Benjamin Gallay for the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project. The testimony states that in the past five years, none of the Applicant's steel poles in Minnesota have failed due to tornados or other weather; two of the Applicant's 10,350 structures failed during a tornado in Colorado. In Minnesota, an F3 tornado with wind speeds of up to 150-200 miles per hour passed through the Hugo, Minnesota area, but the wood pole structures and conductors did not fall (Gallay, 2010).

Commenter 11 – Xcel Energy

ATTACHMENT 1



MEMORANDUM

DATE: October 25, 2010
TO: Grant Stevenson (XCEL Energy)
CC: Kurt Bell (POWER-BOI), Rich Mues (POWER-STL), DMS SR-06 121054.07.05
FROM: Tyler Kent
SUBJECT: 121054 Pleasant Valley to Byron Pipeline AC Interference Analysis

MESSAGE

Enclosed are the results of the AC interference investigation for the proposed 161 kV transmission line performed by Power Engineers (POWER) for the XCEL Energy (XCEL) Pleasant Valley to Byron 161 kV Transmission Line Project. POWER's role was to provide analysis and recommendations for overall placement of the transmission line based upon the objective of maintaining the cathodic protection system and ensuring personnel protection on the Northern Natural Gas pipeline system. This memo only identifies the results and recommendations based upon the addition of the single 161 kV transmission line with an installed shield wire type of Waxwing ACSR from Pleasant Valley Substation to the transmission line segment located at Dodge Mower Rd. Analysis was not performed for the connection of the pipeline to the Pleasant Valley Substation. In addition, some assumptions were made as needed to perform this analysis.

In summary, the AC interference investigation of the addition and operation of the proposed 161 kV transmission line results in the following:

- Normal operating conditions of the transmission line is not predicted to cause any adverse effects on the pipeline or the associated cathodic protection.
- For a possible faulted condition of the power line system, damage to the pipeline coating is not predicted. However, a possible faulted condition on the proposed 161 kV transmission line will result in IEEE 80-2000 ("IEEE Guide for AC Substation Grounding") touch and step voltage compliance concerns at the gas pipeline system valve station near mile post (MP) 35.65. The non-compliance concerns associated with the fault can be mitigated with addition of proper grounding techniques at the valve station. A discussion of typical details of the mitigation is provided in the Mitigation Recommendation section of the memo.

Commenter 11 – Xcel Energy

ATTACHMENT 1

MEMORANDUM

POWER Engineers, Inc.'s (POWER) original engineering service for this study was to analyze the effects of the proposed 161 kV transmission line on the existing natural gas pipeline with the objective of complying with National Association of Corrosion Engineers (NACE) Standard Practice SP0177-2007. In addition to meeting NACE SP0177-2007 current densities were examined to minimize the possibility of corrosion on the pipeline from 60 Hz induced currents. This memo provides results from the analysis and the recommended mitigation associated with meeting the objectives of this analysis.

The AC Interference analysis was performed using the SES (Safe Engineering Services and technologies, Ltd.) CDEGS (Current Distribution, Electromagnetic Fields, Grounding and Soil Structure Analysis) MultigroundZ software package, version 13.4.28.0.

Compliance Limits

For the purpose of evaluating the effects on the pipeline due to the operation of XCEL's proposed Pleasant Valley to Byron 161 kV transmission line, the following guidelines were used:

- A touch voltage limit of 15 Volts between any accessible part of the pipeline and ground or other accessible parts under steady state conditions.
 - This is based upon Section 5.2.1.1 of NACE SP0177-2007
- A pipeline coating stress voltage limit of 3,000 Volts pipeline to ground during faulted conditions.
 - This is based upon Section 4.13.2 of NACE SP0177-2007 for an epoxy type coating.
- A limit of 10 Amps/Ft² current density to minimize pipeline corrosion.
 - Based on worked conducted by W. Printz, "AC Induced Corrosion on Cathodically Protected Pipelines," UK Corrosion '92 (1992), p1.
 - This is based upon a holiday size of 1cm².
- A limit of 42 feet separation between any structure grounding and the pipeline to minimize the risk of arcing through the soil during faulted conditions.
 - This is an approximation for the predicted soil resistivity of 37.3 Ohm-meters (bottom layer equivalent) and a fault current of approximately 16,000 Amps based on experimental data conducted for a Canadian Electrical Association study.
- A touch voltage limit of 197 Volts pipeline to ground and a limit of 229 Volts across three feet of soil without contact to any grounded metallic object (typically associated as a step voltage) during fault conditions on the proposed 161 kV transmission line.
 - This is based upon IEEE Standard 80-2000 assuming native soil (no surface layer of rock), a 50 kg person, and a maximum system backup protection fault clearing time of 0.334 seconds.

Commenter 11 – Xcel Energy

ATTACHMENT 1

MEMORANDUM

Results

Tables 1 and 2 on the next page show the effects on the gas pipeline from the proposed route of the 161 kV transmission line during normal (steady state) operating and faulted conditions respectively.

Table 1: Normal Operating Conditions

Steady State				
Initial Proposed Route Case	Pipeline Voltage Touch Voltage Limit (Volts)	Calculated Touch Voltage Result (Volts)	Current Density Limit (Amps/Ft ²)	Calculated Current Density Result (Amps/Ft ²)
Summer Emergency Loading	15	6.9	10	3.9
Normal Summer Loading	15	5	10	2.8

Table 2: Faulted Conditions

Faulted conditions						
Initial Proposed Route Case	Pipeline Coating Voltage Limit (Volts)	Calculated Pipeline Coating Stress Voltage Result (Volts)	Maximum Touch Voltage Limit (Volts)	Calculated Touch Voltage Result (Volts)	Maximum Step Voltage Limit (Volts)	Calculated Step Voltage Result (Volts)
Fault at worst case fault location near MP35.65 with the Waxwing ACSR shield wire	3,000	2,588	197	1,527	229	759

The results show that AC induction mitigation is not required for the pipeline based on normal operation of the proposed 161 kV transmission line as all induced voltages on the pipeline are less than the NACE SP0177-2007 15 Volt guideline. In addition, mitigation is not required based on corrosion effects due to the 60 Hz induced currents on the pipeline as the AC current density was less than the 10 A/ Ft² guideline.

For a possible faulted condition of the power line system, pipeline coating damage is not predicted as the voltages on the pipeline are less than the NACE SP0177-2007 3,000 Volt withstand limit. In addition, the minimum distance from the pipeline to proposed grounding structure grounding is to be no less than 75 feet (which is greater than the estimated 42 feet from the CEA study). This distance is used to minimize the potential of arcing through the ionization of soil.

Commenter 11 – Xcel Energy

ATTACHMENT 1

MEMORANDUM

However during the faulted conditions, IEEE Std. 80-2000 touch and step voltage limits are exceeded. Therefore, mitigation will be required at the gas pipeline valve station near MP35.65

Mitigation Recommendations

POWER recommends the following:

- Installation of gradient control mats at each location where a portion of either the 16" or 12" pipeline extrudes from the soil.
- Buried conductor loops (approximately 18 inches from the surface) located three feet beyond the fence line, and 1' inside the fence line is recommended.
- If feasible, it is recommended that the addition of at least three (3) inches of crushed rock is installed extending three (3) feet beyond the fence line, in addition to the currently installed crushed rock at this site, if additional rock cannot be installed at this location, the addition of anode grounding electrodes will be required with the installation of the gradient control mats and buried conductor loops.
- The placement of anode grounding electrodes at the gas pipeline valve site, either separately or in combination, with the above described grounding is recommended to help minimize the voltages on the pipeline.

While not required for mitigation of touch and step potentials, the installation of test stations is recommended on both the 12" and 16" pipelines at the valve stations to verify voltages on the pipeline. In the event maintenance or construction requires the unearthing of the pipeline, it is recommended that temporary grounding is used as outlined in the NACE standard practice SP0177-2007.

Committer 11 – Xcel Energy

ATTACHMENT 2

Direct Testimony and Schedules

Jason Standing

STATE OF MINNESOTA

**OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION
FOR A ROUTE PERMIT FOR THE
PLEASANT VALLEY TO BYRON 161 KV
TRANSMISSION LINE PROJECT

PUC DOCKET NO. E002/TL-09-1315
OAH DOCKET NO. 16-2500-21470-2

DIRECT TESTIMONY OF

JASON STANDING

On Behalf of

APPLICANT

NORTHERN STATES POWER COMPANY, A MINNESOTA CORPORATION

October 11, 2010

Exhibit _____

Committer 11 – Xcel Energy

ATTACHMENT 2

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Commenter 11 – Xcel Energy

ATTACHMENT 2

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS.

A. My name is Jason Standing and my business address is 414 Nicollet Mall, Minneapolis, MN 55401.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed as a Senior Specialty Engineer at Northern States Power Company, a Minnesota corporation (“Xcel Energy” or the “Company”).

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I earned a Bachelor of Science degree in Electrical Engineering from North Dakota State University in 1999. I am currently enrolled at the University of Minnesota’s Master of Business Administration program. From 1999 until 2000, I was a Systems Planner and Project Manager at Alliant Energy in Madison, Wisconsin. From 2000 until 2002, I was employed by Sebesta Blomberg and Associates in Roseville, Minnesota as a Project Engineer. Between 2002 and 2003, I was employed by Wunderlich-Malec Systems in Minnetonka, Minnesota as a Project Manager and Design Engineer. Since 2004, I have been employed by Xcel Energy as a Senior Specialty Engineer. My responsibilities include running load flow models for the Xcel Energy transmission system and maintaining and updating existing computer models to reflect changes to the transmission system. In addition, I am part of a transmission planning team that is responsible for developing solutions for the

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Commenter 11 – Xcel Energy

ATTACHMENT 2

entire Xcel Energy transmission system to ensure reliability and efficiency. My resume is attached as Schedule 1.

Q. FOR WHOM ARE YOU TESTIFYING?

A. I am testifying on behalf of Xcel Energy, the applicant for a Route Permit in this proceeding.

Q. PLEASE IDENTIFY THE SCHEDULES ATTACHED TO YOUR TESTIMONY?

A. Schedule 1: CV of Jason Standing
Schedule 2: Figures of Double Circuit and Adjacent Circuits

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I am providing testimony regarding the transmission engineering and planning considerations of the proposed 161 kV transmission line connecting the Pleasant Valley Substation and the Byron Substation in Southeast Minnesota (“Project”). The purpose of my testimony is to address how route selection impacts system reliability. I am also providing testimony regarding Section 5.3 of the Draft Environmental Impact Statement (“DEIS”).

Q. WERE YOU INVOLVED IN THE PREPARATION OF XCEL ENERGY’S ROUTE PERMIT APPLICATION IN THIS PROCEEDING?

A. Yes. I contributed to the need and reliability analysis contained in the Route Permit Application (the “Application”).

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ATTACHMENT 2

1 **Q. ARE YOU AVAILABLE TO PROVIDE TESTIMONY IN SUPPORT OF PARTICULAR**
2 **SECTIONS OF THE APPLICATION?**

3 A. Yes. I am testifying in support of Section 1.2 (Need).

4
5 **II. ELECTRICAL SYSTEM PLANNING CRITERIA**
6

7 **Q. FROM AN ELECTRICAL RELIABILITY STANDARD, HOW, GENERALLY, DOES**
8 **THE LOCATION OF A NEW HIGH VOLTAGE TRANSMISSION LINE IN**
9 **RELATION TO EXISTING HIGH VOLTAGE TRANSMISSION LINE FACILITIES**
10 **IMPACT ELECTRICAL SYSTEM RELIABILITY?**

11 A. In general, overall system reliability is enhanced when new transmission
12 facilities are located in geographic areas distinct from existing facilities.
13 Reliability is reduced when facilities are congregated in close proximity to each
14 other.

15
16 **Q. ARE THERE TRANSMISSION SYSTEM PLANNING REQUIREMENTS THAT**
17 **RELATE TO SPECIFIC CIRCUMSTANCES WHERE FACILITIES ARE CO-LOCATED**
18 **ON THE SAME POLES OR IN CLOSE PROXIMITY?**

19 A. Yes. The North American Electric Reliability Corporation (“NERC”) has
20 established mandatory standards with which every utility in the United States
21 must comply. These standards govern many aspects of transmission systems
22 and transmission planning is among them. When discussing new high voltage
23 transmission lines and NERC, we must consider two specific terms NERC
24 uses in its analysis: “Category C” and “Category D.”
25

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1 Category C refers to the NERC criteria that govern two circuits constructed on
2 the same poles or towers. These configurations are what we refer to as a
3 “double circuit” transmission line. NERC Category C requires utilities to
4 analyze a single event that causes simultaneous outages of both circuits of a
5 double circuit transmission line.
6

7 Category D is a common reference to the standards that govern the most
8 serious transmission system contingencies. The Category D contingencies that
9 pertain to this proceeding are loss of all transmission lines along a common
10 right-of-way and loss of an entire voltage level at a substation. The effect of
11 these transmission contingencies on the system (and the transmission system’s
12 ability to serve load) must be monitored. The more common rights-of-way are
13 propagated, particularly involving high voltage facilities, the more likely it
14 becomes that an outage involving multiple facilities could occur.
15

16 **Q. HOW DOES THIS PLANNING CRITERIA SPECIFICALLY RELATE TO THE**
17 **ROUTING DECISIONS IN THIS PROCEEDING?**

18 A. Those routes that are more geographically distant from existing transmission
19 facilities will provide the most reliability benefit.
20

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Commenter 11 – Xcel Energy

ATTACHMENT 2

III. DOUBLE CIRCUIT ALTERNATIVE

Q. DID APPLICANT CONSIDER CO-LOCATING THE PROJECT ON THE SAME STRUCTURES AS THE EXISTING 345 kV TRANSMISSION LINE BEFORE SUBMITTING THE APPLICATION?

A. Yes. Planning engineers evaluated whether the proposed transmission line could be double circuited with the existing Pleasant Valley – Byron 345 kV line and concluded that this configuration was not a reasonable alternative.

Q. WHY?

A. A double circuit configuration would not meet the Project need of providing additional generation outlet, it would complicate construction, and it would increase costs.

Q. WHY WOULD A DOUBLE CIRCUIT CONFIGURATION NOT MEET THE PROJECT NEED OF PROVIDING ADDITIONAL GENERATION OUTLET?

A. Double circuiting is employed, for example, in situations where two circuits serve different functions or where high capacity (but not redundancy) is required. Double circuit construction is not acceptable in this situation where failure of both circuits would jeopardize reliability because the risk of a simultaneous outage is greatly increased for this configuration. Therefore, if it were determined under the relevant reliability rules that a simultaneous outage would jeopardize electric service, double circuiting would not be allowed. Here, both the existing 345 kV line and the proposed transmission line serve the same purpose—generation outlet. The 345 kV line is currently constrained under certain conditions. Specifically, there is a Special Protection Scheme

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("SPS") that requires curtailment of generation at the Pleasant Valley substation anytime there are high north-south flows on the 345 kV line. If the 345 kV line and the proposed 161 kV line were double circuited, NERC Planning Standards would consider both of these circuits to be a "single contingency" type of event and generation would have to be curtailed on the new double circuited line. As a result, if the two lines are double circuited, no additional generation outlet capacity is achieved.

Q. WHAT ARE THE CONSTRUCTION CONCERNS ASSOCIATED WITH DOUBLE CIRCUITING THE PROPOSED TRANSMISSION LINE WITH THE EXISTING 345 kV TRANSMISSION LINE?

A. In addition to providing an outlet for generation, the existing 345 kV transmission line provides bulk transmission support to the Rochester area. Because of this, it would be very difficult to take the 345 kV transmission line out of service for the time necessary to construct a new double circuit line.

Q. WHAT ARE THE COSTS ASSOCIATED WITH CONSTRUCTING A NEW DOUBLE CIRCUIT LINE?

A. The cost of constructing a 345/161 kV double circuit line between Pleasant Valley and Byron exceeds \$30 million. As described above, in spite of nearly triple the cost of construction for this project, none of the required additional generation outlet capacity will be achieved.

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Commenter 11 – Xcel Energy

ATTACHMENT 2

1 **IV. ENVIRONMENTAL IMPACT STATEMENT ALTERNATIVES**

2
3 **Q. ONE OF THE ROUTES EVALUATED IN THE DRAFT EIS (“DEIS”)**
4 **PARALLELS THE EXISTING 345 kV TRANSMISSION LINE. ARE THERE ANY**
5 **ELECTRICAL SYSTEM PLANNING CONCERNS RELATED TO THIS ROUTE,**
6 **REFERRED TO AS THE “ROUTE ALTERNATIVE 3”?**

7 A. Yes, while placing the proposed 161 kV transmission line adjacent to the
8 existing 345 kV transmission line would technically satisfy the NERC Category
9 C requirement and provide the needed additional capacity, this route offers
10 reduced reliability because the lines would be located in a common corridor, a
11 Category D scenario.

12
13 **Q. WHAT ARE THE RELIABILITY CONCERNS ASSOCIATED WITH PLACING THE**
14 **PROPOSED 161 kV LINE ON SEPARATE STRUCTURES BUT OVERLAPPING**
15 **RIGHTS-OF-WAY WITH THE EXISTING 345 kV LINE?**

16 A. If the 161 kV transmission line were constructed on a separate structure parallel
17 to the existing 345 kV transmission line, Xcel Energy would attempt to place
18 the lines as close as possible while still maintaining necessary safety clearances
19 to take advantage of overlapping rights-of-way and minimize the additional
20 right-of-way that would be needed for this configuration. Conductors of the
21 two lines, if constructed adjacent to one another, would be nearly as close as
22 with the double circuit configuration (36 feet for adjacent and 30 feet for
23 double-circuit). The two figures attached to my testimony as Schedule 2
24 illustrate the proximity of the conductors for these two configurations.

25
8 PUC Docket No. ET2/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct

Commenter 11 – Xcel Energy

ATTACHMENT 2

1 While separating the circuits meets the Category C criteria, there is still a risk
2 that a single event could take out both circuit as this configuration would only
3 place the circuits six feet further apart. Accordingly, in my engineering
4 judgment, little reliability improvement is achieved by separating the circuits.
5

6 **Q. THE PREFERRED ROUTE AND THE ALTERNATE ROUTE BOTH HAVE**
7 **PORTIONS THAT ARE IN CLOSE PROXIMITY TO THE EXISTING 345 kV**
8 **TRANSMISSION LINE. DOES THIS CREATE ANY RELIABILITY CONCERNS?**

9 A. The Preferred Route was selected for both routing and reliability reasons.
10 Regarding reliability, the Preferred Route provides the greatest separation
11 possible between the existing 345 kV transmission line and the proposed 161
12 kV transmission line. The greater the separation between these two lines the
13 more reliable the system is because there is less risk that a single event could
14 cause both lines to fail. It is necessary in transmission planning for
15 transmission lines to be in close proximity at substations, but we attempt to
16 configure the substation and select the route that will offer the greatest
17 separation between the transmission lines.

18
19 **V. DRAFT ENVIRONMENTAL IMPACT STATEMENT**

20
21 **Q. HAVE YOU REVIEWED SECTION 5.3 OF THE DEIS?**

22 A. Yes.
23

9 PUC Docket No. ET2/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct

Commenter 11 – Xcel Energy

ATTACHMENT 2

1 **Q. THE DEIS STATES (P. 18) THAT THE EXISTING 345 kV LINE AND THE**
2 **PROPOSED 161 kV LINE SERVE DIFFERENT FUNCTIONS. IS THIS CORRECT?**

3 A. No. While it is true that the existing 345 kV line serves multiple functions,
4 including local load serving and regional power transfer, the existing 345 kV
5 transmission line also serves the same purpose as the proposed 161 kV
6 transmission line, which is to provide generation outlet capacity from the
7 Pleasant Valley Substation.
8

9 **Q. THE DEIS (P. 18) FURTHER STATES THAT THE PROPOSED 161 kV WILL NOT**
10 **PROVIDE ADDITIONAL RELIABILITY TO THIS AREA AS IT WOULD NOT BE**
11 **ABLE TO SERVE THE SAME CAPACITY AS THE EXISTING 345 kV LINE IN THE**
12 **EVENT OF A LOSS OF THE 345 kV LINE. DOES THE PROPOSED LINE NEED**
13 **TO HAVE THE SAME CAPACITY TO SERVE AS A BACK-UP DURING A**
14 **CONTINGENCY?**

15 A. No. To increase generation outlet at Pleasant Valley, the entire transmission
16 network needs to have capacity to withstand the outage of the existing 345 kV
17 line. The proposed 161 kV line, the associated 345/161 kV transformer, and
18 the remaining network all work together to serves a full back-up when the 345
19 kV line is out of service. Another way to look at this issue is that our planning
20 studies show that simultaneous loss of both the 345 kV and the proposed 161
21 kV lines result in zero increase of generator outlet from the Pleasant Valley
22 Substation.
23

24 **Q. WITH REGARD TO PLACING THE PROPOSED LINE PARALLEL TO THE**
25 **EXISTING 345 kV LINE, THE DEIS NOTES THAT IT IS UNLIKELY THAT A**
26 **FALLING STRUCTURE FROM ONE OF THE LINES WOULD TAKE THE OTHER**

10 PUC Docket No. ET2/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct

Commenter 11 – Xcel Energy

ATTACHMENT 2

1 **LINE OUT OF SERVICE. IS STRUCTURE FAILURE THE ONLY TYPE OF OUTAGE**
2 **EVENT THAT MUST BE CONSIDERED?**

3 A. No. Structure failure is not the only outage event that must be analyzed and in
4 my opinion, it is not even the most likely event. A lightning strike or wind
5 blown debris are a much more likely outage event. As a stated previously,
6 simultaneous loss of both the 345 kV and 161 kV on adjacent right-of-way is a
7 Category D event and utilities must study and understand how to respond to
8 such an event. In my professional engineering judgment, placing the circuits of
9 these two lines six feet further apart, as compared to a double circuit design, to
10 avoid a Category C contingency is not prudent.
11

VI. CONCLUSION

12
13
14 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

15 A. Yes.
16

2763473v1

11 PUC Docket No. ET2/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct

Commenter 11 – Xcel Energy

Docket No.E002/TL-09-1315
OAH Docket No. 16-2500,21470-22
ATTACHMENT 2
Standing Direct - Schedule 1
1 of 2

JASON T. STANDING

414 Nicollet Mall
Minneapolis, MN 55401

PROFESSIONAL EXPERIENCE

Xcel Energy, Minneapolis, MN 2004-current

Transmission Planning Engineer

- Responsible for facilitating and improving the Constructability I process.
- Provide updated project estimates and scope for the quarterly budget process.
- Responsible for running load flow for the Xcel Energy electrical transmission system.
- Part of the planning team responsible for developing solutions for the entire Xcel Energy transmission system to ensure reliability and efficiency.
- Responsible for maintaining and updating existing computer models to reflect changes to the transmission system.
- Prepare cost analysis reports for management.

Wunderlich-Malec Systems, Minnetonka, MN 2002-2003

Project Manager

- Managed the design, electrical system analysis, and procurement for a \$1 million dollar 69 kV substation and system control house.
- Responsible for delivering cost analysis to the customer, preparing equipment bids, while monitoring expenses.
- Provided field support for the construction team to ensure that the substation was delivered on time and to the customer's satisfaction.
- Oversaw the training on SKM Power Tools for the project team.
- Developed project time schedule.
- Managed 7 electricians, 5 substation construction workers, 2 relay test engineers, 1 CAD specialist.

Design Engineer

- Lead design engineer for the American Transmission Company's new 69 kV substation.
- Lead engineer responsible for accurate settings of the system protection relays.
- Responsible for ensuring the NESC codes were followed.
- Developed system protection studies and computer models.
- Created new drawing sets while updating old drawing sets to ensure accuracy for the customer.

Commenter 11 – Xcel Energy

Docket No.E002/TL-09-1315
OAH Docket No. 16-2500,21470-22
ATTACHMENT 2
Standing Direct - Schedule 1
2 of 2

Sebesta Blomberg and Associates, Roseville, MN 2000-2002

Project Engineer

- Commissioning specialist whose duties included creating test sheets for various types of electrical equipment, field visits, overseeing testing specialists at the Pentagon and other commercial sites.
- Design engineer who used creative problem solving techniques to redesign customer's 230 kV and 115 kV breaker control panels.
- Responsible for developing accurate drawing sets for the customer.
- Developed load flow and system protection studies.

Alliant Energy, Madison, WI 1999-2000

Systems Planner

- Part of planning team responsible for developing creative cost saving solutions to the entire Alliant electrical system.
- Responsible for running load flow analysis for the southern Wisconsin electrical distribution and transmission system.
- Involved in maintaining and updating existing computer models to reflect changes to the physical system.
- Prepared cost analysis reports for management.

Project Manager

- Part of project team that led the \$29 million dollar electrical distribution system redesign for the City of Janesville, WI.
- Coordinated team efforts to put together marketing presentation for management.

EDUCATION

B.S. in Electrical Engineering, North Dakota State University, Fargo, ND 1999
E.I.T., PE (in process)
MBA, University of Minnesota, MN (in process)

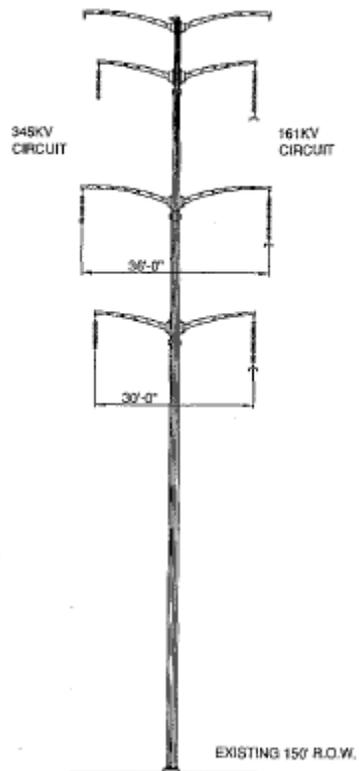
COMPUTER EXPERIENCE

PSSE, Synergy, SKM Power Tools, Microsoft Office, AutoCAD

Committer 11 – Xcel Energy

ATTACHMENT 2
MPUC Docket No. E002/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct Schedule 2, Page 1 of 2

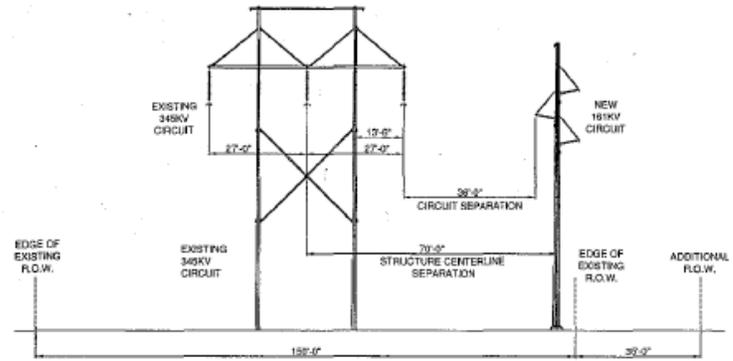
345/161 KV DOUBLE CIRCUIT STRUCTURES



Committer 11 – Xcel Energy

ATTACHMENT 2
MPUC Docket No. E002/TL-09-1315
OAH Docket No. 16-2500-21470-2
Standing Direct Schedule 2, Page 2 of 2

345 KV AND 161 KV ON OVERLAPPING RIGHTS-OF-WAY



Commenter 11 – Xcel Energy

*In the Matter of the Route Permit Application
for the Pleasant Valley to Byron 161 kV
Transmission Line*

CERTIFICATE OF SERVICE
MPUC Docket No. E002/TL-09-1315
OAH Docket No. 16-2500-21470-2

Theresa Senart certifies that on the 27th day of October 2010, she filed a true and correct copy of Xcel Energy's Comments regarding the Draft Environmental Impact Statement, by posting the same on www.edockets.state.mn.us. Said Comments are also being sent via U.S. Mail or email as designated on the Official Service List on file with the Minnesota Public Utilities Commission.

/s/ Theresa Senart
Theresa Senart

Commenter 11 – Xcel Energy

Assigned Service List Members

PUC Docket No. ET-2/TL-08-1474
OAH Docket No. 7-2500-20283-2

Service List Member Information

Electronic Service Member(s)

Last Name	First Name	Email	Company Name	Delivery Method	View Trade Secret
DeBleekere	Patriola	tricia.debleekere@state.mn.us	Public Utilities Commission	Electronic Service	Yes
Ferguson	Sharon	sharon.ferguson@state.mn.us	Department of Commerce	Electronic Service	Yes
Haar	Buri W.	buri.haar@state.mn.us	Public Utilities Commission	Electronic Service	Yes
Hammel	Karen Finstad	Karen.Hammel@state.mn.us	Office of the Attorney General-DOC	Electronic Service	Yes
Langan	Matthew	matthew.langan@state.mn.us	Office of Energy Security	Electronic Service	Yes
Lehman	Paul J.	paul.lehman@xcelenergy.com	Xcel Energy	Electronic Service	No
Lewis	Michael	michael.lewis@state.mn.us	Office of Administrative Hearings	Electronic Service	Yes
Lindell	John	agorud.ecf@state.mn.us	Office of the Attorney General-RUD	Electronic Service	Yes
Means	Valerie	meansv@moss-barnett.com	Moss-Barnett	Electronic Service	No
Shaddix Eiling	Janet	jshaddix@janetshaddix.com	Shaddix And Associates	Electronic Service	Yes

Paper Service Member(s)

Last Name	First Name	Company Name	Address	Delivery Method	View Trade Secret
Cervantes	Manuel	Office of Administrative Hearings	PO Box 64620, St. Paul, MN-551640620	Paper Service	Yes
Herring	Valerie	Briggs and Morgan, P.A.	2200 IDS Center, 80 S. Eighth Street, Minneapolis, MN-55402	Paper Service	No
Hillstrom	Tom	Xcel Energy	7th Floor, 414 Nicollet Mall, Minneapolis, MN-554011993	Paper Service	No

Appendix D

Sample HVTL Route Permit

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH
VOLTAGE TRANSMISSION LINE
IN**

FILLMORE COUNTY, MINNESOTA

**ISSUED TO
ECOHARMONY WEST WIND, LLC**

PUC DOCKET NO. IP-6688/TL-09-601

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

EcoHarmony West Wind, LLC

EcoHarmony West Wind, LLC, is authorized by this route permit to construct a eight and one-half-mile 161 kilovolt (kV) transmission line between a new EcoHarmony West substation and a new switching station in Fillmore County, Minnesota.

The transmission line shall be built within the route identified in this permit and as portrayed on the attached official route map, and in compliance with the conditions specified in this permit.

Approved and adopted this _____ day of May 2010

BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

This document can be made available in alternative formats (i.e. large print or audio tape) by calling (651) 201-2202 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at (800) 627-3529 or by dialing 711.

I. ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to EcoHarmony West Wind, LLC (permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes the permittee to construct approximately eight and one-half miles of 161 kV transmission line and associated facilities between a new EcoHarmony West substation to be located in Bristol Township and a new switching station in Harmony Township in Fillmore County, Minnesota.

II. PROJECT DESCRIPTION

The proposed project would consist of 8.5 miles of new conductor, structures, a new substation, and a new switching station. The right-of-way required for the transmission line is 50 feet in width where the line runs parallel to a public roadway. The designed voltage of the proposed line is 161 kV for the entire proposed route. The transmission line would be supported by direct-embedded, wooden structures, with brace posts for the majority of the route. These tangent structures would be 65-75 feet in height with foundations that are approximately 30 inches in diameter with a 350-400 foot span between each structure. At locations where large angles (turns) are necessary and at the ends of the route, poles will be galvanized or weathered steel to support the transmission line. These structures are 78 feet in height.

The three phases for this project would each consist of single 795 (Drake) aluminum conductor steel reinforced (ACSR). The ACSR conductors are 795,000 circular mils or approximately 1.108 inches in diameter and are comprised of seven steel wires in the center surrounded by 26 aluminum strands. Ultimately, the proposed 161 kV transmission line would be a single-circuit, three-phase, 60 Hz (hertz), alternating current line.

The proposed EcoHarmony West Collector Substation on the west end of the transmission line will require up to ten acres. The proposed site is located in the Southwest quarter of Section 14, Township 101 North, Range 11 West in Fillmore County. The land adjoins County Road 15. As the transmission line crosses this parcel to connect to the substation, the permittee requires a 100-foot right-of-way.

The proposed switching station is located in the Southeast quarter of Section 23, Township 101 North, Range 10 West of Fillmore County. EcoEnergy has negotiated a perpetual easement agreement with the landowner for up to 6 acres. This site is immediately west of the proposed interconnection point along the ITC Midwest transmission line. As the transmission line crosses this parcel to connect to the substation, the permittee requires a 100-foot right-of-way.

III. DESIGNATED ROUTE/SITE

The route designated by the Commission in this permit comprises the 8.5-mile segment located in Fillmore County, Minnesota, as described in detail below, and shown on the official route map attached to this permit.

The applicant's proposed transmission line route would originate at the proposed EcoHarmony West Substation in Section 14 of Bristol Township, Fillmore County, Minn. The transmission line route would exit the substation heading south across existing agricultural land approximately one-half mile to County State Aid Highway (CSAH) 44. The line would then head east on private easements for approximately four miles to 305th Avenue. At 305th Avenue, the line would turn south one mile to 120th Street. At 120th Street, the line would turn east and travel approximately three miles to the switching station in Section 23 of Harmony Township, Fillmore County. The switching substation will be located on existing agricultural land approximately one-quarter mile north of 120th Street.

The route width approved by this permit is as follows:

- A one-quarter mile route width on the land parcel in Section 14, T 101 N, R 11 W, in Fillmore County, that will host the EcoHarmony West substation. A 100-foot right-of-way is required for the transmission line at this location;
- A 220-foot route width centered on CSAH 44 from the EcoHarmony West substation to 305th Avenue. A 50-foot right-of-way is required for the transmission line in this location;
- A 220-foot route width centered on 305th Avenue (south of CSAH 44) to 120th Street. A 50-foot right-of-way is required for the transmission line in this location;
- A 220-foot route width centered on 120th Street (east of 305th Avenue) to the switching station in Section 23, T 101 N, R 10 West of Fillmore County. A 50-foot right-of-way is required for the transmission line in this location;
- A one-quarter mile route width on the land parcel in Section 23, T 101 N, R 11 W, in Fillmore County that will host the switching station. A 100-foot right-of-way is required for the transmission line at this location.

The transmission line and associated facilities will be designed to meet or exceed all relevant state and local codes and requirements of the National Electric Safety Code (NESC), which is the utility safety standard that applies to all transmission line facilities. The transmission line facility will also meet the North American Electric Reliability Corporation's (NERC) reliability standards. In addition, the substation station facilities will be fenced, kept free of vegetation, maintained for adequate drainage, and access will be limited to authorized personnel in accordance with the above requirements and standards.

IV. PERMIT CONDITIONS

The permittee shall comply with the following conditions during construction of the transmission line and associated facilities and the life of this permit.

A. Plan and Profile. At least 14 calendar days before right-of-way preparation for construction begins, the permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line. The permittee may not commence construction until the 14 days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit.

If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

B. Construction Practices.

1. **Application.** The permittee shall follow those specific construction practices and material specifications described in the EcoHarmony West Wind, LLC, Application to the Public Utilities Commission for a Route Permit, dated July 2009, and as described in the environmental assessment and findings of fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

2. **Field Representative.** At least 10 days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction. The field representative's address, phone number, emergency phone number, and email address shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change its field representative at any time upon written notice to the Commission.

3. **Local Governments.** The permittee will work closely with the Minnesota Department of Transportation (MnDOT), Fillmore County Department of Transportation and Bristol and Harmony townships to ensure minimal disruption to area traffic and will obtain licenses required for county and township road right-of-way sharing. Oversize and overweight truck permits will be coordinated with MnDOT, Fillmore County Department of Transportation, and township road authorities

4. **Cleanup.** All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

5. **Vegetation Removal in the Right-of-Way.** The permittee shall minimize the number of trees to be removed in selecting the right-of-way. As part of construction, low growing brush or tree species are allowable within and at the outer limits of the easement area. Taller tree species that endanger the safe and reliable operation of the transmission facility need to be removed. To the extent practical, low growing vegetation that will not pose a threat to the transmission facility or impede construction should remain in the easement area. Should removal of vegetation require herbicide application, the permittee will coordinate with the Minnesota Department of Natural Resources (DNR) to avoid the potential of directly or indirectly affecting native prairie and rare plant species.

6. **Erosion Control.** The permittee shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect silt fences, and/or use erosion control blankets in non-agricultural areas that were disturbed where structures are installed. All areas disturbed during construction of the facilities will be returned to their pre-construction condition.

7. **Temporary Work Space.** The permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way.

8. **Restoration.** The permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other private lands affected by construction of the transmission line. Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line. Within 60 days after completion of all restoration activities, the permittee shall advise the Commission in writing of the completion of such activities. The permittee shall fairly reimburse landowners for any damage including, but not limited to, yard/landscape damages, structure/fence damage, crop damage, soil compaction, or drain tile damage sustained during construction or maintenance activities.

9. **Notice of Permit.** The permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

C. Periodic Status Reports. Upon request, the permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The permittee need not report more frequently than quarterly.

D. Complaint Procedure. Prior to the start of construction, the permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

E. Notification to Landowners. The permittee shall provide all affected landowners with a copy of this permit at the time of the first contact with the landowners

after issuance of this permit. The permittee shall contact landowners prior to entering the property or conducting maintenance along the route and avoid maintenance practices, particularly the use of fertilizer, herbicides, or pesticides inconsistent with the landowner's or tenant's use of the land. The permittee shall work with landowners to locate the high voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads, tree clearing, and other aesthetic concerns.

F. Completion of Construction.

1. **Notification to Commission.** At least three days before the line is to be placed into service, the permittee shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.
2. **As-Builts.** Upon request of the Commission, the permittee shall submit copies of all the final as-built plans and specifications developed during the project.
3. **GPS Data.** Within 60 days after completion of construction, the permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (GIS compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines, each switch, and each substation connected.

G. Electrical Performance Standards.

1. **Grounding.** The permittee shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes, root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short circuit current between ground and the object so as not to exceed one milliamperes rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC.
2. **Electric Field.** The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m.
3. **Interference with Communication Devices.** If interference with radio or television, satellite or other communication devices is caused by the presence or operation of the transmission line, the permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

H. Special Conditions

1. **Archaeological and Historic Resources.** The permittee shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high voltage transmission line on the approved route. Prior to construction a Phase IA archaeological survey of the proposed project area will be conducted by the permittee to identify archaeological resources in areas with surface visibility greater than 25 percent and to determine the need for additional subsurface testing along the project route. The results of the cultural resource assessment and the Phase IA survey will be provided to the Commission and State Historic Preservation Office (SHPO) for their review and response.

2. **Wetlands/Water Resources.** The permittee will minimize potential impacts to wetland areas by locating structures outside of wetlands and adjacent to these resource areas when feasible and spanning all surface flows. Unavoidable wetland impacts as a result of the placement of poles shall be limited to the immediate area around the poles. The permittee will use construction mats or perform construction during frozen conditions to minimize disturbance and compaction of wetlands and riparian areas during construction. Soil excavated from the wetlands and riparian areas will be contained and not placed back into the wetland or riparian area. Silt fencing or other erosion control measures will be used to prevent sedimentation when working near wetlands and watercourses. Areas disturbed by construction activities will be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.). Where waterways must be crossed to pull in the new conductors and shield wires, workers may walk across, use boats, or drive equipment across ice in the winter.

Prior to construction activities, the District Engineer for the U.S. Army Corps of Engineers (Corps) will be notified with a preconstruction notification authorized under the Corps St. Paul District Regional General Permit for structural discharges. An application will be filed with the Fillmore County Soil and Water Conservation District (SWCD) to determine if the proposed project would impact any wetlands or public waters under local jurisdiction of the SWCD. Conditions provided in the MPCA NPDES permit, and the DNR license to cross public lands and waters will also be followed.

If construction activities will result in the disturbance of one acre or more of soils, a National Pollutant Discharge Elimination System stormwater permit from the Minnesota Pollution Control Agency will be required. Standard erosion control measures outlined in Minnesota Pollution Control Agency guidance and best management practices regarding sediment control practice during construction. These practices include, but are not limited to, protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

3. **Accommodation of Existing and Planned Infrastructure.** The permittee is required to work with the landowners, townships, cities, and counties along the route to accommodate their concerns regarding tree clearing, distance from existing structures, drain tiles, pole depth and placement in relationship to existing roads and road expansion plans.

I. Other Requirements.

1. **Applicable Codes.** The permittee shall comply with applicable requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way widths, erecting power poles, and stringing of transmission line conductors.
 2. **Other Permits.** The permittee shall comply with all applicable state rules and statutes. The permittee shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the route permit application and the environmental assessment. The permittee shall submit a copy of such permits to the Commission upon request.
 3. **Pre-emption.** Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the permittee and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.
- J. Delay in Construction.** If the permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

V. PERMIT AMENDMENT

The permit conditions in Section IV may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the permittee. The Commission may amend the conditions after affording the permittee and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The permittee may request at any time that the Commission transfer this permit to another person or entity. The permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the permittee, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rules part 7850.5100 to revoke or suspend the permit.

SAMPLE ONLY

MINNESOTA PUBLIC UTILITIES COMMISSION COMPLAINT REPORT PROCEDURES FOR HIGH VOLTAGE TRANSMISSION LINES

1. Purpose

To establish a uniform and timely method of reporting complaints received by the permittee concerning the permit conditions for site preparation, construction, cleanup and restoration, special conditions, other requirements, and resolution of such complaints.

2. Scope

This reporting plan encompasses complaint report procedures and frequency.

3. Applicability

The procedures shall be used for all complaints received by the permittee.

4. Definitions

Complaint – A statement presented by a person expressing dissatisfaction, resentment, or discontent as a direct result of the high voltage transmission line and associated facilities. Complaints do not include requests, inquiries, questions or general comments.

Telephone Complaint – A person presenting a complaint by telephone shall indicate whether the complaint relates to (1) a substantive routing permit matter, (2) a high voltage transmission line location matter, or (3) a compensation matter. All callers must provide the following information when presenting a complaint by telephone: (1) name; (2) date and time of call; (3) phone number; (4) email address (if available); (5) home address; (6) parcel number.

Substantial Complaint – Written complaints alleging a violation of a specific route permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Person – An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

5. Responsibilities

Everyone involved with any phase of the high voltage transmission line is responsible to ensure expeditious and equitable resolution of all complaints. It is therefore necessary to establish a uniform method for documenting and handling complaints related to this high voltage transmission line project. The following procedures will satisfy this requirement:

- A. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - 1. Name of the permittee and project.
 - 2. Name of complainant, address and phone number.
 - 3. Precise property description or tract numbers (where applicable).
 - 4. Nature of complaint.
 - 5. Response given.
 - 6. Name of person receiving complaint and date of receipt.
 - 7. Name of person reporting complaint to the Public Utilities Commission (Commission) and phone number.
 - 8. Final disposition and date.
- B. The permittee shall assign an individual to summarize complaints for transmittal to the Commission.

6. Requirements

The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports – All substantial complaints shall be reported to the Commission by phone or by e-mail the same day received or on the following working day for complaints received after working hours. Such reports are to be directed to high voltage transmission line permit compliance at the following: DOC.energypermitcompliance@state.mn.us or 1-800-657-3794. Voice messages are acceptable.

Monthly Reports – By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month shall be sent to Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, Metro Square Building, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147. A copy of each complaint shall be sent to Permit Compliance, Minnesota Department of Commerce, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

Unresolved Complaints – The permittee shall submit all unresolved complaints to the Commission for resolution by the Commission, where appropriate, no later than 45 days after the date of the submission.

7. Complaints Received by the Commission

Copies of complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

Initial Screening – Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantive routing permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and the complainant if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the staff notification. Staff shall present briefing papers to the Commission, which shall resolve the complaint within 20 days of submission of the briefing papers.

Condemnation/Compensation Issues – If the Commission’s staff initial screening determines that a complaint raises issues concerning the just compensation to be paid to landowners on account of permittee acquisition of high voltage transmission line easements, staff shall recommend to the Executive Secretary that the matter be resolved under the provisions of Minnesota Statutes, Chapter 117. If the Executive Secretary concurs, he shall so report to the Commission and the matter shall be dealt with in the high voltage transmission line condemnation proceedings as an issue of just compensation.

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES**

1. Purpose

To establish a uniform and timely method of submitting information required by Minnesota Public Utilities Commission (Commission) Energy Facility Permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

A) The permittee shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Minnesota Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: <https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the website. Permittee must register on the website to eFile documents.

B) All filings must have a cover sheet that includes:

- 1) Date
- 2) Name of submitter/permittee
- 3) Type of Permit (Site or Route)
- 4) Project Location
- 5) Project Docket Number
- 6) Permit Section Under Which the Filing is Made
- 7) Short Description of the Filing

C) Filings that are graphics intensive (e.g., maps or plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Office of Energy Security, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the PUC may request a paper copy of any eFiled document.

PERMIT COMPLIANCE FILINGS¹

PERMITTEES: EcoHarmony West Wind, LLC
PERMIT TYPE: High Voltage Transmission Route Permit
PROJECT LOCATION: Fillmore County
PUC DOCKET NUMBER: IP-6688/TL-09-601

Filing Number	Permit Section	Description	Due Date
1	IV.A.	Submit Plan and Profile of the right-of way and design specifications.	At least 14 days prior to right-of-way clearing
2	IV.A.	Any significant changes made in Plan and Profile or Specifications after initial submission.	Notify Commission at least 5 days prior to implementing changes.
3	IV.B.2.	Name Field Representative to oversee compliance with permit conditions.	At least 10 days prior to commencing construction
4	IV.C.	Periodic Status Reports (finalization of route, design of structures, and construction progress/milestones)	Quarterly
5	IV.D	Submit Complaint Procedure to be used to receive and respond to complaints.	Prior to the start of construction
6	IV.F.1.	Provide Notification to Commission of construction completeness and in-service date.	At least 3 days before the line is placed into service
7	IV.F.3.	Submit GPS Data of structures, lines and substations.	Within 60 days after completion of construction
8	IV.H.1.	Submit Phase 1A Archaeological Survey ²	Prior to the start of construction

¹ This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. However, it is not a substitute for the permit; the language of the permit controls.

² Also to be submitted to the State Historical Preservation Office for review.